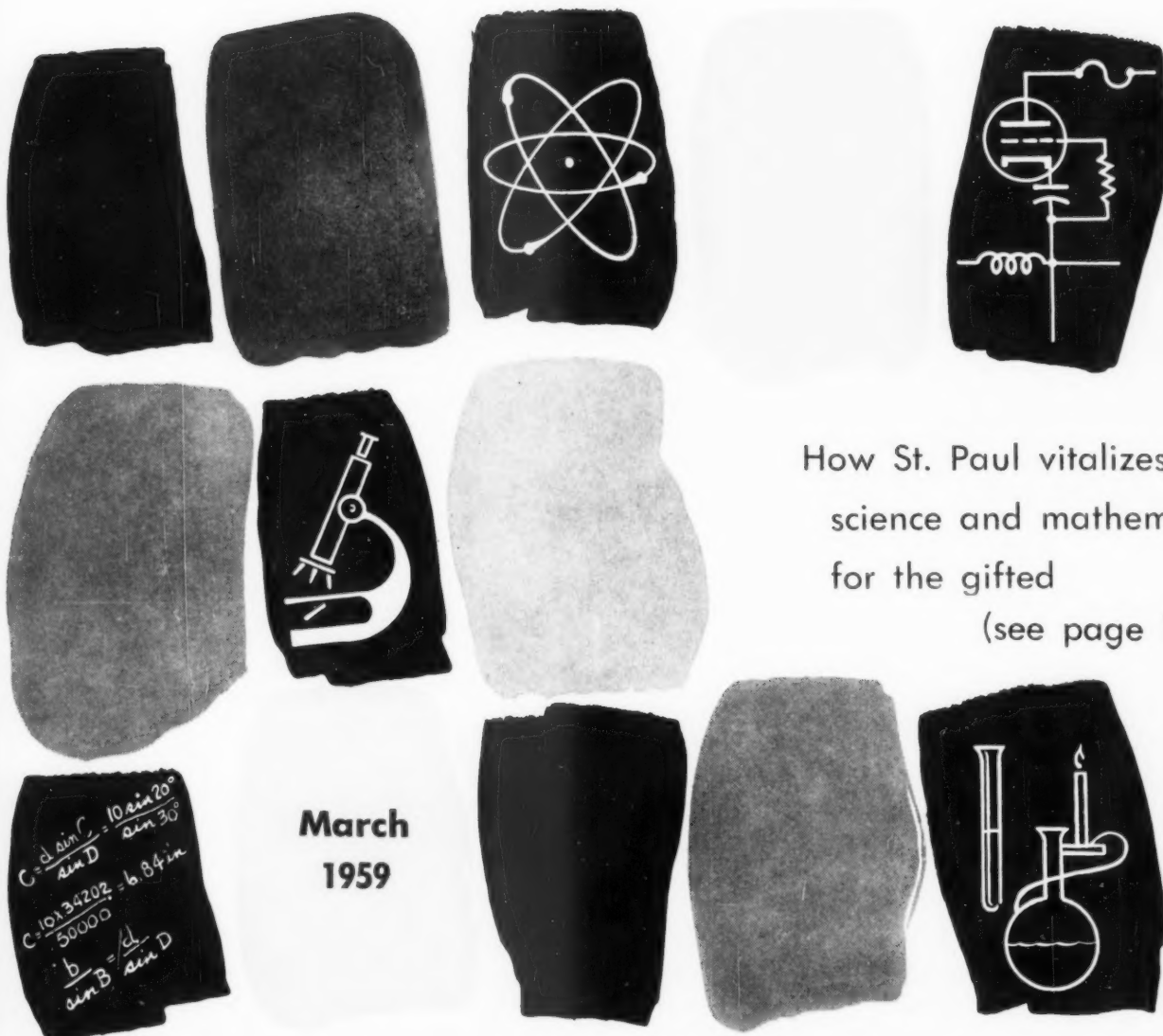


the
**AMERICAN
 SCHOOL BOARD**
 JOURNAL

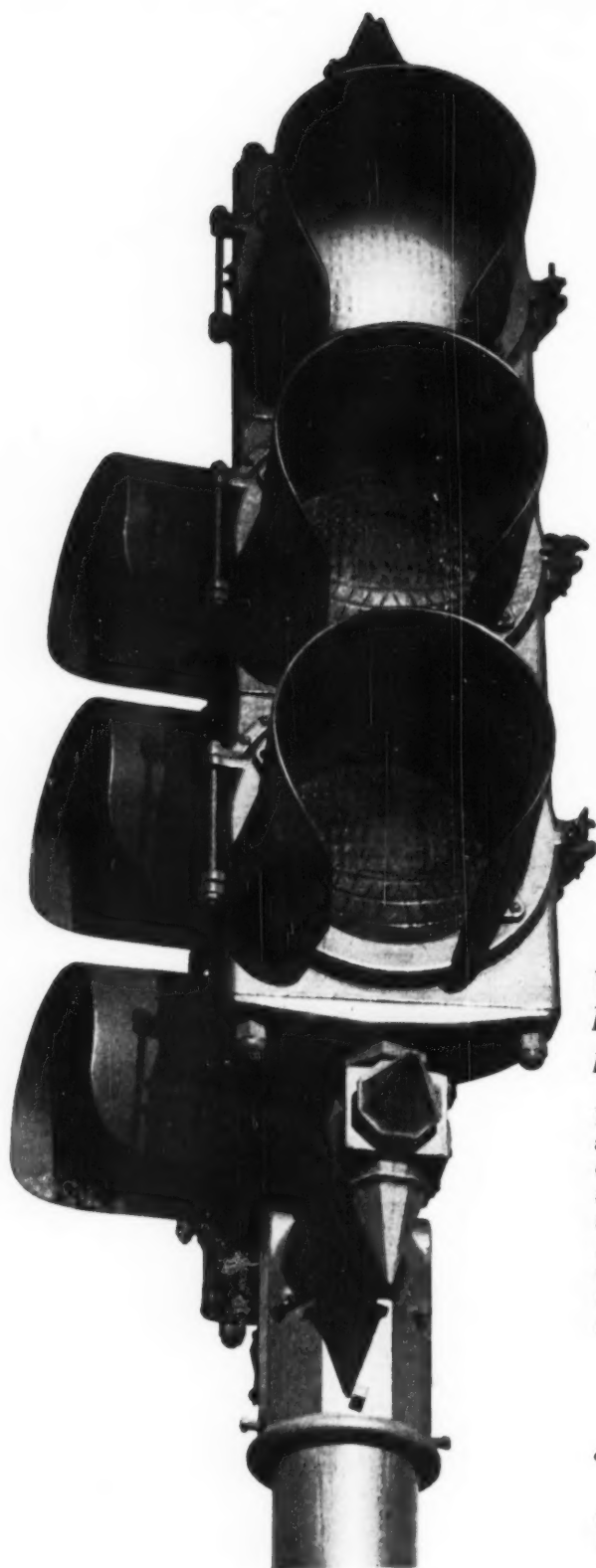
a periodical of school administration

JOURNAL



How St. Paul vitalizes
 science and mathematics
 for the gifted
 (see page 19)

March
 1959



We protect our children TO and FROM school...BUT are they protected while they are IN school?

Protection from the spread of fire is as important in a school building as it is at home... deserves the same careful consideration of school board officials and architects as hospitals and other buildings where safety is a "must."

A plan for a school building can only be "safe" design when every wall and ceiling is made of non-combustible, fire-resistant materials that can match the characteristics of Genuine Lath and Plaster.

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SPOKANE • WASHINGTON

UTILITY TAKES BOLD FORWARD STRIDE

• Located in an expertly landscaped 28-acre park bordering the cascading, power-producing Spokane River, is the new Headquarters Office and related service facilities of the largest private electric utility in the Pacific Northwest. These new structures, which replace aging buildings strewn about Spokane, are close to the center of the company's ten scattered power dams. The main building in the \$7.6-million group is a 5-story building enclosing offices by double glazing and blue glass spandrels. A glassed-in corridor connects this building and a large auditorium equip-

ped with 300 seats. Adjoining it is a large cafeteria, private dining rooms and long lounge areas. On the opposite side of the office building, another corridor leads to the huge Central Service Building. From these buildings, where efficiency prevails, workers enjoy long scenic views up and down the winding river. The handsome buildings in Spokane's biggest and most distinguished post-war project are ultramodern outside and inside, and are completely equipped with SLOAN *Flush VALVES*, famous for efficiency, durability and economy.



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4 Medart power operation requires no expensive floor tracks, no building changes or added wall reinforcing—no other conditions than are needed for manually operated seats. Only ordinary 110-volt or 220-volt electric source is needed.

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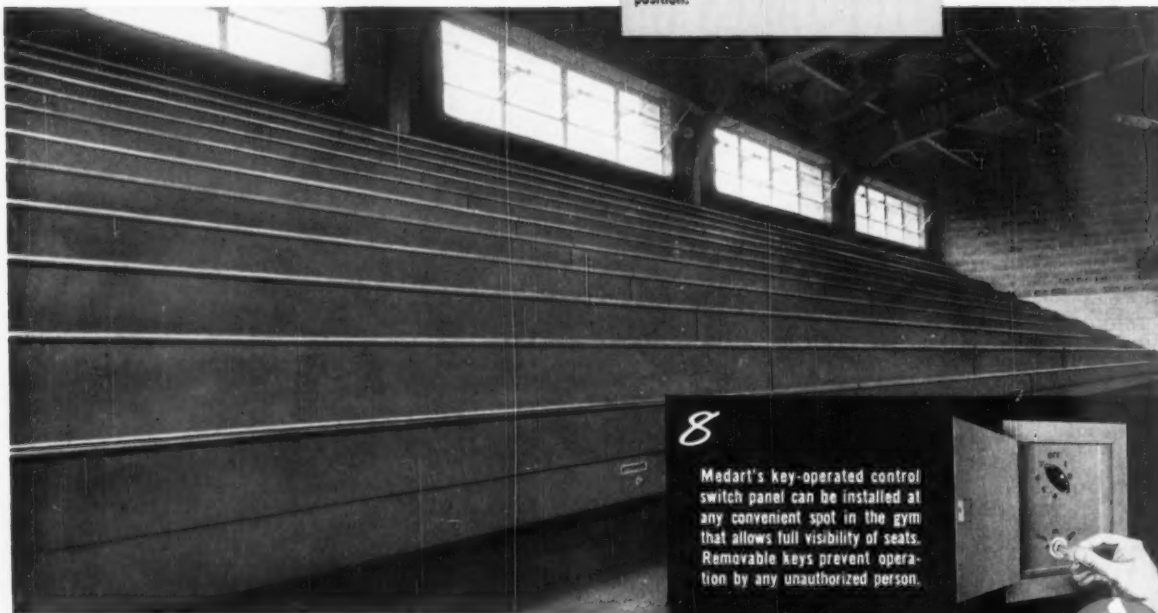
7 When all seat rows are not required, release of switch key stops motion instantly, leaving only as many rows as necessary opened and locked immovably in position.

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March, 1959

the AMERICAN SCHOOL BOARD JOURNAL

EDITORIALS

- 50 Small Classes and Educational Efficiency, Fitzpatrick

A JOURNAL SURVEY

- Fire Safety in Our Schools
32 What Must Be Done for Fire Safety?, Quinn
35 What Can You Do for Fire Safety?, French
38 How to Teach Your Pupils Fire Safety, Cooper and Horvath
39 The ABC's of Automatic Fire Detection Devices, Eberhardt
40 Some Facts About Fire Extinguishers, Smalley

FEATURES

- 19 St. Paul Vitalizes Science and Mathematics for the Gifted, Penk
22 Making Good Boardmen Better, Gear
24 How the Board and Superintendent Can Work Together as a Team,
Cooper and Scharer
27 Cincinnati's Adventure Into ETV, Curry
29 Why Not Save Money?, Cook
44 NSBA Report: The NSBA in San Francisco

WORD FROM WASHINGTON

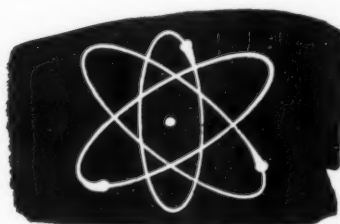
- 46 Education in the President's Budget, Exton

SCHOOL BUILDING

- 41 The Expandable Campus High School

DEPARTMENTS

- | | |
|-----------------------------------|-----------------------------|
| 6 Your JOURNAL for March | 61 New Books |
| 12, 48 Surveying the School Scene | 66 Personal News |
| 16 Pros and Cons | 70 New Products |
| 44 NSBA Report | 77 Reader's Service Section |



OUR COVER . . .

A well-integrated gifted program — from teacher training to student selection to curriculum formulation — is what St. Paul offers in the areas of science and mathematics. And the report of this "horizontal accelerated enrichment" concept (pg. 19) of the district's **Student Developmental Program** describes a comprehensive approach we're sure you'll find helpful in work with your gifted students.

A review of your JOURNAL for March (pg. 6) —→

WILLIAM C. BRUCE, Editor

Published on the 25th of the month preceding the date of issue by THE BRUCE PUBLISHING COMPANY, 400 North Broadway, Milwaukee 1, Wisconsin. CENTRAL OFFICE: 20 North Wacker Drive, Chicago 6, Illinois. EASTERN OFFICE: 233 Broadway, New York 7, New York.

THE AMERICAN SCHOOL BOARD JOURNAL, A Periodical of School Administration, March, 1959, Vol. 138, No. 3. Copyright, 1959, by The Bruce Publishing Company. — All rights reserved. Title registered as Trade Mark in the United States Patent Office. Entered as Second-Class Mail Matter, March 17, 1891, at the Post Office at Milwaukee, Wis., under the Act of March 3, 1879.

Air Conditioned Schools:

*they cost no more to build
than less modern buildings*

IF YOU ARE planning a new school building, one of the most important decisions you have to make is whether or not to plan for air conditioning.

For this reason, it is necessary to realize that, in most cases, you can build a *better school for less money*—if you include modern air conditioning. This is because a building planned for air conditioning is more compact.

**Today, more than ever before,
there is a need for modern
air conditioning in our schools.**

In many cases, constructing an air conditioned school building saves enough dollars to *pay for the air conditioning equipment itself*. On the other hand, it only requires a mere 3.9% increase in teaching efficiency to *pay for complete year-round air conditioning*.

Studies show that because of body heat and the sun's rays it takes outside air of less than 60 degrees to adequately cool a school building without air conditioning. When outside air is more than 60 degrees, classrooms are sure to be uncomfortable.

Below are some Government figures showing the percentage of school-year classroom hours, in various cities, when the temperature is *above sixty degrees*.

These, then, are the percent-

CITY	% classroom time, during the regular school year, that temperature is above 60 degrees
LOS ANGELES.....	86%
DALLAS.....	62%
WASHINGTON, D. C.....	44%
ST. LOUIS.....	43%
CLEVELAND.....	34%
CHICAGO.....	32%
MINNEAPOLIS.....	25%

ages of classroom time when air conditioning is *vital*, if adequate efficiency in teaching and learning is to be maintained in the school building. Of course, these figures do *not* include the important summertime, when our schools are being used more and more each year.

More advantages of air conditioning

Besides the economic advantages of an air conditioned school, there are numerous other important benefits. First, and most important, is the *increased efficiency* of both faculty and students. This means better teaching—better learning. It can also result in less absenteeism.

Another important benefit is *cleanliness*. A cleaner atmosphere is a more productive atmosphere



—more conducive to learning. It also means a substantial saving on cleaning and maintenance bills.

Air conditioning can turn summertime into learning time

With an air conditioned school, summer study becomes more popular. The school can be used in the hottest weather, for both daytime and evening classes. It can also be utilized for recreational activities that would be impossible without air conditioning.

Consult an expert

Today, more than ever before, air conditioning is important for our schools. To learn more about the economies of air conditioning, consult your architect or air conditioning dealer. Or write: Honeywell, Department AJ-3-43, Minneapolis 8, Minnesota.

*Proper classroom temperatures
mean more take-home learning*



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Your JOURNAL for March

A nationally-known economist, addressing a state school board association convention recently, urged school directors to use available money more shrewdly . . . to adopt more efficient methods of operation as industry does when increasing expenditures race with income.

This sound advice creates, of course, a most vital question: *how* can school use less man hours to perform more services?

In your JOURNAL for March, we believe you'll find a very competent answer to this question. Dr. Cook of Concord, Calif., in analyzing many phases of school administration, inventories (pg. 29) cost cutters which are practical but which should not weaken your instructional program. His hints are directed to produce more services for better schools without using additional funds. We hope you'll have a chance to study his suggestions for the ones that are applicable in your district!

Your JOURNAL for March also features an outstanding discussion of how the board and superintendent can work together as a team for better school by outlining (pg. 24), in parallel fashion, what the board expects of the superintendent and what the superintendent expects of the board. An understanding of the duties each has toward the other is one sure way toward producing co-operation among the school management team—a unity without which progressive schools are virtually impossible.

Finally, we hope you'll read and remember the recommendations contained in a five-part survey on fire safety in the schools (pg. 32). Now that the fury of inspections after the December fire has subsided, boards must calmly and wisely revitalize their fire safety policies—and make sure that their program is a continually alert one. The authoritative authors of this survey offer vital guidelines for the restructuring of your program.

This is, as usual, only a quick rundown. There are many more fine papers on other subjects that should be of interest to you—and don't miss the monthly departments, especially one introduced this month, *Pros and Cons* (pg. 16), a sounding board intended to provide you with an opportunity to express your views, for and against, on any topic on the educational scene. Just write down your thoughts in a letter and send them on.

for April...

Conant's report on the American high school today is one of many recent counsels for redistricting. Consolidation, however, is not a panacea and an important article in your JOURNAL for April pinpoints some current misconceptions concerning what objectives redistricting can achieve.

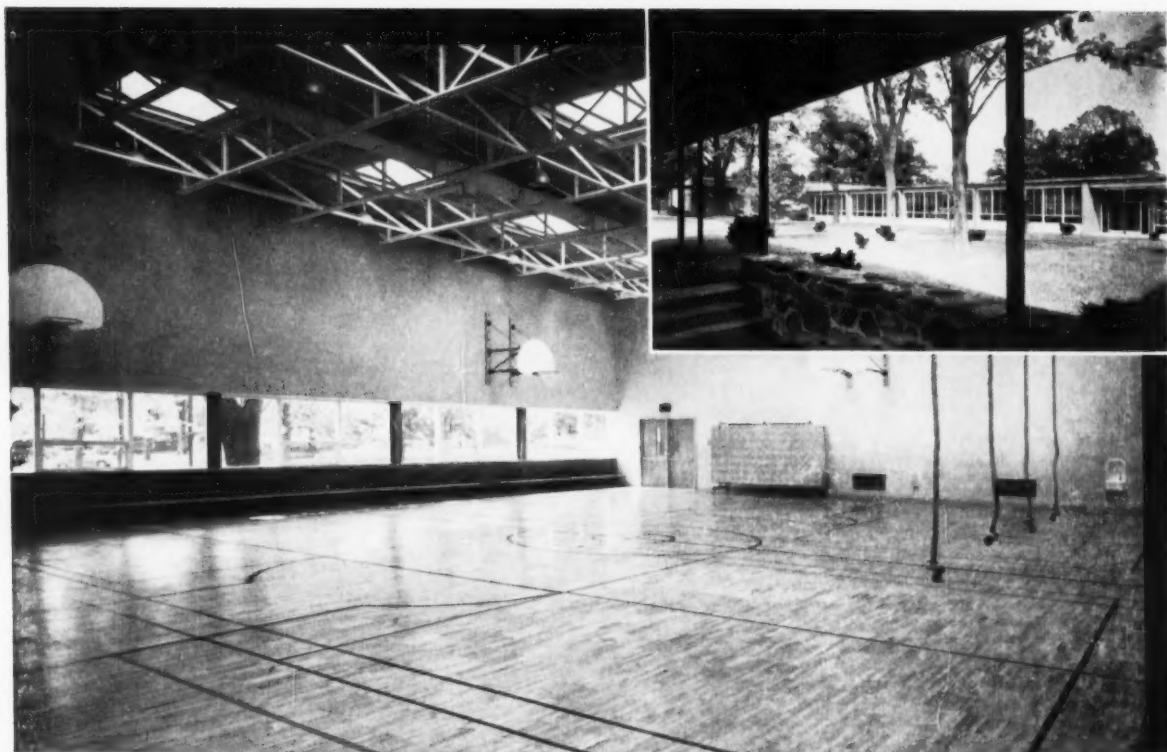
The Editor

SUBSCRIPTIONS. In the United States, Possessions, and Canada, \$4.00 a year, payable in advance. Two-year subscriptions will be accepted at \$6.00. In all foreign countries, \$5.00, two years at \$8.00. Single copies, 50 cents.

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CHANGE OF ADDRESS. When you have a change of address kindly report it to us at once. Send us your old as well as your new address and be sure the Postmaster is notified. Postal regulations restrict forwarded service on magazines to two issues only.

EDITORIAL MATERIAL. Manuscripts and photographs bearing on school administration, superintendence, school architecture, and related topics are solicited and will be paid for upon publication. Contributions should be mailed to Milwaukee direct and should be accompanied by return postage if unsuitable. The contents of this issue are listed in the "Education Index."



ARCHITECTURALLY
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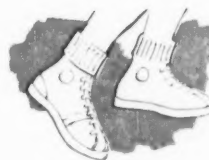
Floor of Northern Hard Maple, Patterned Design. Veterans Park Elementary School, Ridgefield, Conn. Sherwood, Mills and Smith, Architects, Stamford, Conn. Photographs: Courtesy Ezra Stoller.

a consensus that makes sense

Thoughtful schoolmen and architects, more and more, are insisting on lifetime floors of Northern Hard Maple for elementary school gymnasiums and multi-purpose rooms. Today's concept calls for using school facilities for broader community service. Schools formerly closed in summer now are open for health classes, neighborhood meetings, lectures, athletic events. Supervised roller skating, on easily-maintained floors of Northern Hard Maple, brings welcome revenue, and wholesome recreation. No other floor provides the resilience, the warmth, the foot-friendly comfort and over-all economy, of true *Northern Hard Maple. The MFMA mark guarantees grade, species and accuracy. Specify it—in standard strips or in patterns laid in mastic. Write for new listing of MFMA-approved finishing products, tested under revised specifications in the public interest.

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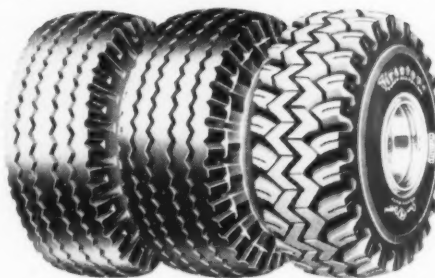
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Surveying the School Scene

news notes of special interest

VIRGINIA SCHOOLS INTEGRATE

The integration spotlight turned from Little Rock to several Virginia cities which integrated peaceably:

- In Arlington, four Negro seventh graders entered previously white Stratford Junior High School without picketing or violence.

- The Norfolk schools admitted 21 Negroes without incidents to six secondary schools that had been closed since last summer.

- A week after the above integrations, Alexandria calmly desegregated with nine Negroes attending previously all-white schools.

- In Fort Royal, however, school officials indicated no action would be taken without a court order to open the Warren County High School whose 1040 students attend make-shift classes, private schools, etc.

Virginia's Gov. J. Lindsay Almond, who fought for continued segregation up to the wire, had indicated that violence would not

be tolerated. And President Eisenhower complimented Virginia officials, parents, and pupils of the Virginia cities whose schools were integrated.

- In Little Rock, Federal District Judge John E. Miller rejected a request of the Little Rock school board to open immediately the four closed high schools on a segregated basis, while the board worked out a new program for integration.

ENGINEERING STUDENTS DECREASE

First-year college enrollments in engineering dropped by 11 per cent in the fall of 1958 after increasing steadily for seven years, according to Health, Education, and Welfare secretary, Arthur S. Flemming. "This is a serious setback in a field of education vital to our national security in a period of revolutionary technological change," he said.

First-year enrollments last fall totaled 70,129 compared to 78,757 in the 1957-58 school year. Over-all enrollments in both graduate and undergraduate engineering courses was off 2.4 per cent, dropping from 297,077 to 289,927.

FEDERAL AID BILLS

A new form of federal aid for needed school and college construction is proposed in bills introduced in Congress on February 10, at the request of Secretary Arthur Flemming of the Department of Health Education and Welfare. The government would pay one-half of the interest and retirement of principal on school bonds issued by districts unable to meet their needs, and the states would be obliged to match the federal funds on a 50-50 basis. Maximum federal payments would be \$65 million annually, up to a total of \$2 billion over 25 years. The plan would apply to construction begun within the next five years and would enable starts on new buildings up to \$3 billion, including an estimated 75,000 classrooms. In the college-aid program, the annual federal payments for interest and principal would be \$25 million annually up to \$500 million in 25 years.

If a community becomes able to pay any part or all of its bonded debt in a year, the federal payments would be reduced or discontinued accordingly. The school district would be asked to make a reasonable tax effort to repay the federal advances after the entire debt is discharged, but all advances would be forgiven at the end of ten years.

The plan, according to a public statement by Mr. Flemming, is flexible. Some 140,500 classrooms are still needed even though the construction is at the rate of about 70,000 rooms per year.

- Bills for federal aid to school construction and teachers' salaries (S. 2 in the Senate and H.R. 22 in the House of Representatives) were introduced during the first week of Congress' 86th session by long-time supporters, Senator James E. Murray (D. Mont.) and Rep. Lee Metcalf (D. Mont.).

The bills (which will, according to the NEA's William G. Carr, "enable the Federal government to assume its rightful share in the support of schools") propose federal financial grants to the states on the basis of each state's estimated school-age population, to be expended either for public school construction or

(Concluded on page 54)

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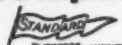
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Make sure your students have this extra protection! Insist that your present school buses—and all new buses—be equipped with Bendix-Westinghouse Air Brakes. They're more economical, too! You get longer brake lining life and less down-time for maintenance.

The complete air brake story is told in our booklet, *Their Safety Is In Your Hands*. We'll be happy to send you as many copies as you need.



HOW YOUR SCHOOL BUSES CAN BE EQUIPPED WITH AIR BRAKES

On many models of school buses, Bendix-Westinghouse Air Brakes are factory-installed. On all other models they can be installed at time of delivery, or later, by your dealer and his authorized Bendix-Westinghouse distributor.

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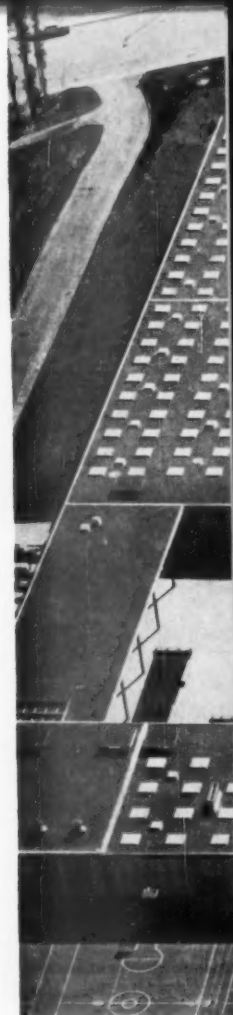
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THE BIG NEWS COMES LATER:

first uses make headlines . . . but only proved products are used again

Large interior spaces in the Mills School are uniformly daylighted by prefabricated Toplite Roof Panels.



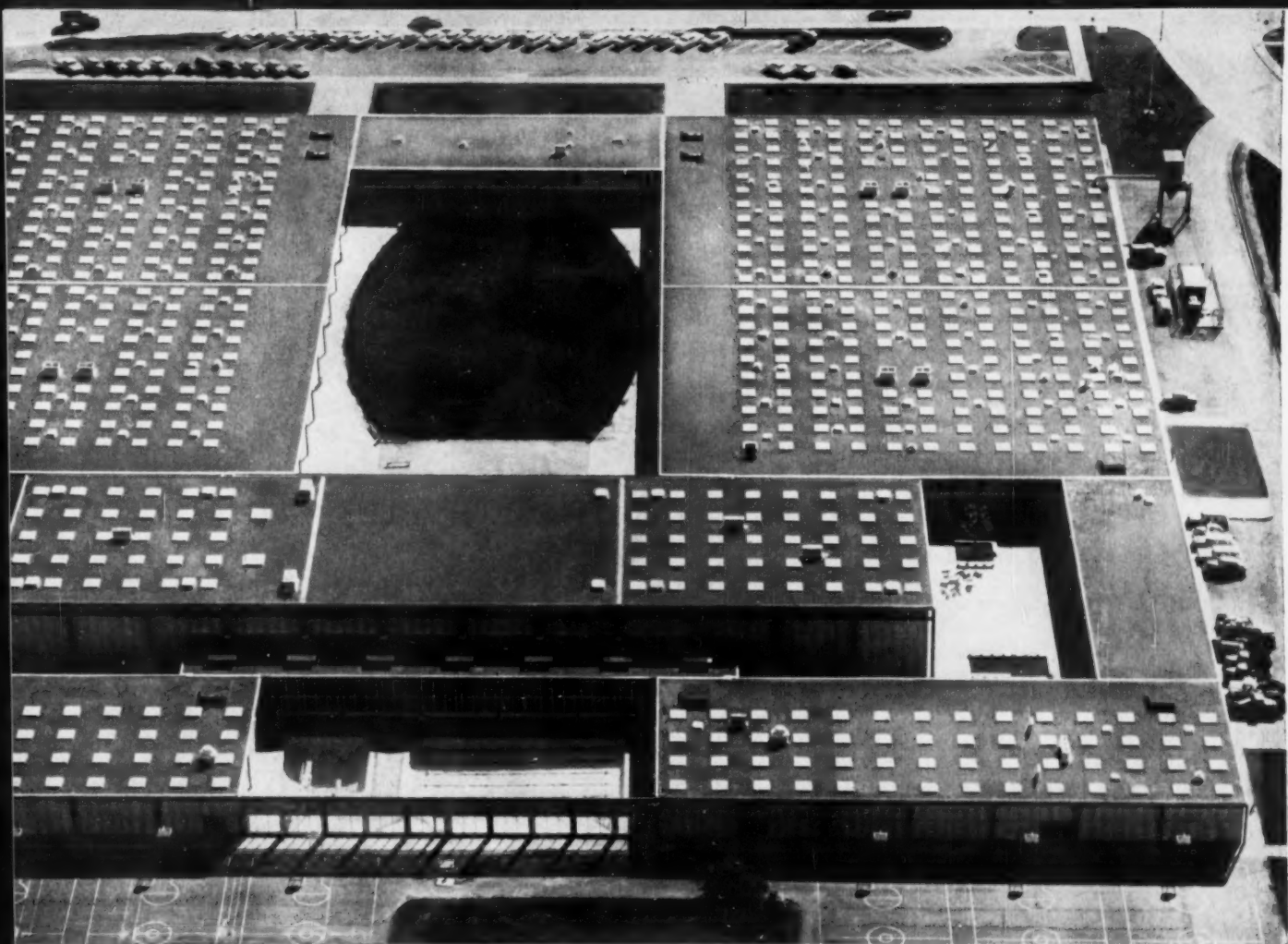
CREATORS OF 1955's Again choose TOPLITE

In 1955, San Mateo's Hillsdale High School brought to architecture a bold, new concept in school design . . . Time and use have proved it to be the ultimate in space flexibility.

The new Mills High School, also in the San Mateo District, uses, in essence, the famous Hillsdale design. Prefabricated Toplite Roof Panels have again been used by architect John Lyon Reid and the

Corridor of new Mills High School in San Mateo, California, is flooded with cool, diffused daylight by Toplite Roof Panels. Movable wall system allows freedom of interior arrangement.





680 Toplite Panels dot roof of new Mills High School. Improvements in Toplite since 1955 permitted use of less expensive 5' x 5' panels which provide even better daylighting than the 6' x 6' units used in Hillsdale School.

Mills High School, San Mateo Union High School District, San Mateo, Calif.—Thomas F. Reynolds, District Superintendent
Architect: John Lyon Reid and Partners
Contractor: Rothschild, Raffin & Weirick, Inc., and Northern Construction, a Joint Venture

FAMOUS HILLSDALE SCHOOL . . . PANELS FOR 1959's MILLS SCHOOL

same school board for daylighting interior classrooms. Here's why:

Toplites, with their built-in optical prisms, freely transmit cool North light and low winter sun, reject most of the light and heat from the high, hot summer rays. Result: students and teachers are insulated from solar heat . . . daylight is uniformly transmitted throughout the year . . . classrooms,

located far from sidewall daylighting sources, can be arranged for maximum space utilization. Artificial lighting is seldom required. In addition, Toplites insulate like an 8"-thick masonry wall.

For information on how Toplite Roof Panels can solve daylighting problems in your new or remodeled school, write Kimble Glass Company, subsidiary of Owens-Illinois, Dept. AS-3, Toledo 1, Ohio.

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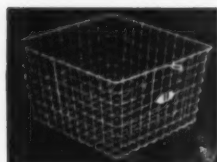
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PROS AND CONS

The Accounting Handbook

I have just finished reading Baughman's article on the financial accounting handbook in the February issue of the AMERICAN SCHOOL BOARD JOURNAL. As a member of the committee that worked on the handbook, I cannot in good conscience let the matter pass without comment.

The most important consideration in our deliberations was to achieve uniformity in the classification of receipts and expenditures. There was no attempt made to compile a complete accounting system. We had to keep in mind constantly that the majority of school systems operate on a cash basis and that elaborate double entry accounting systems would neither be necessary nor workable due to lack of properly trained personnel. It was the consensus of these various committees that the remaining larger school systems with adequately trained staffs were following approved municipal accounting procedures, kept records in sufficient detail, and generally achieved more uniformity in the classification of receipts and expenditures.

The Federal Office of Education was primarily interested in a handbook of this kind to improve the value of annual reports made by school systems to their office. A lack of firm definitions as to what is considered a supply item and what is considered equipment is an example of the kind of confusion that has existed in the past. In almost every type of expenditure classification the same situation existed. There was no nationally recognized authority available to school people for reference and guidance. There is no question in my mind but that the quality of reporting to all levels of government has been improved since the handbook was issued.

Elvin Wunsch

Auditor, Board of School
Directors, Milwaukee, Wis.

Teacher-Pupil Ratios

I was highly pleased with the appearance of your guest editorial, "The Teacher-Pupil Ratio," in the December issue of your excellent journal. . . .

It is well that such a magazine, as you are publishing, sets the record straight on such. There is plenty wrong with education that requires serious attention, but we cannot enlist the support of intelligent individuals and worthy organizations with erroneous propaganda. In fact, this sort of thing will hurt the just cause of education in the long run.

Russell C. Bolin

Superintendent, Terry,
Mont., Schools

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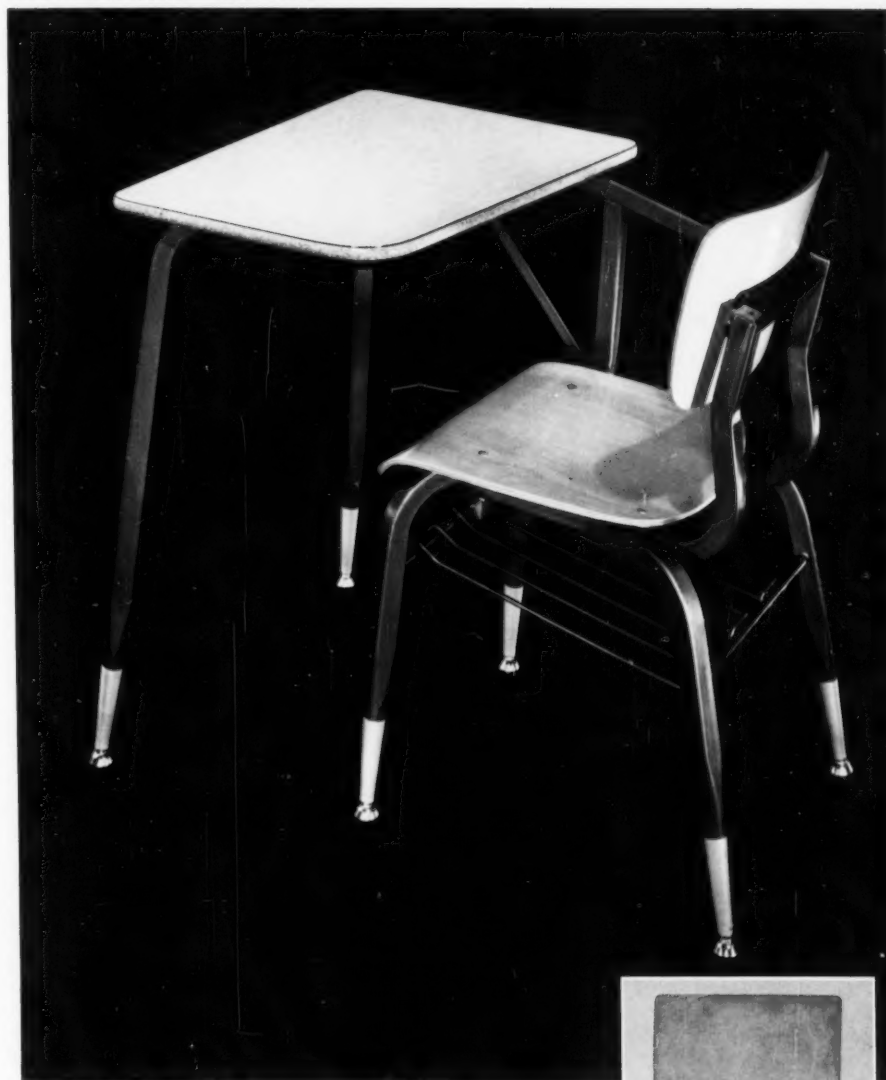
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March, 1959

St. Paul Vitalizes Science and Mathematics for the Gifted

G. L. PENK St. Paul, Minn.

Sputnik-inspired school investigations have prompted many national education authorities to label our high school mathematics and science programs as "medieval." In St. Paul as elsewhere, however, schools were seeking out improved methods and programs in these fields long before the race for space made newspaper headlines. St. Paul's Student Developmental Program, an experimental high school mathematics and science program, was in operation before Sputnik I got off the ground.

The Student Developmental Program took first breath in 1955. At that time, Mrs. Mary M. Pilch began work on a Fund for the Advancement of Education Fellowship. Glenn F. Varner, assistant superintendent of secondary and vocational education in St. Paul, had suggested that she and two other St. Paul teachers apply for a group fellowship to study certain aspects of individual differences. Their grant was one of 15 group grants awarded in the nation that year.

A guide for an accelerated school-community program resulted from Mrs. Pilch's investigation of the provisions being developed for gifted students in America's schools. It described a four-year total curriculum for the very able students in St. Paul schools designed not only to accelerate, but also to enrich their instruction.

The guide was warmly received by St. Paul school officials, but a temporary bond-issue setback precluded any possibility of implementing it immediately. Mr. Varner recommended the promising guide be submitted to the Hill Foundation for consideration.

A. A. Heckman, executive director of the foundation, felt the guide contained the nucleus of something very important, but an entire curriculum was too ambitious and would possibly exceed the scope of the foundation. Instead, he suggested that the experiment be limited to the mathematics and science areas.

Mrs. Pilch was reassigned as foundation consultant for the



The Student Developmental Program
in St. Paul offers the gifted an
"accelerated horizontal enrichment"
curriculum in science and mathematics
as a major advance in upgrading
instruction in these subjects —

Important steps in St.

Paul's student developmental program:

- (1) teacher workshops,
- (2) selection of students by observation and by testing, and
- (3) determination of a space-age curriculum —



teacher training



program, and a full year of preparatory work was started. In her position, she serves as co-ordinator between the Hill Foundation, the St. Paul department of education, and the teacher committees planning and conducting the experiment.

Organizing the high school mathematics and science instructors was the first step in getting the program under way. The entire responsibility for planning the content and scope of the subjects to be taught in the Student Developmental Program was turned over to these classroom teachers. Advice and assistance from administrators were presented only when requested.

An advisory planning committee was appointed to supervise the entire program. Its membership includes representation from the central PTA Council, the chamber of commerce, the St. Paul inter-club council, local private colleges, industries, and trades and labor as well as elementary and secondary teachers, counselors, and principals. The school-community approach was adopted to organize resources and leadership not usually available in school program planning.

Subcommittees operating under the advisory planning committee were formed to carry out functions necessary to the experiment: the able students had to be identified; recording and reporting procedures had to be established; and program implementation in all schools had to be co-ordinated. Committees were also organized to develop the curriculum content of the mathematics and science classes.

Concentration on Selection

The success of any program created for children of outstanding ability is largely dependent upon the selection of

students. Mrs. Pilch felt that too often programs attempted in other cities were doomed from the beginning because the students enrolled in such experiments were not all truly talented or particularly fitted to the materials involved.

The identification of the very able students was conducted in two phases. The initial selection was made by those who knew the students best — teachers, counselors, and principals. They observed all eighth-grade students for promising ability in mathematics and science and made nominations based on the student's special abilities, activities, interests, I.Q., and achievement on standardized tests.

These characteristics were further considered in the light of anecdotal reports, evidenced talent, independence of study, and the utilization of previously learned materials. Observers were cautioned not to confuse interest with potential ability.

The first screening was followed by an objective consideration of the student's records. The nominations, 962 in 1957 and over 1000 in 1958, were forwarded to the subcommittee for student identification.

Students recommended were tested in the second step of the identification procedure. Standardized tests measuring natural science abilities, vocabulary, and thinking ability made up the examination battery. The scores were converted into ninth-grade Minnesota norms, and dossiers were prepared on each student assembling all previous data and recommendations. The subcommittee selected the students to take part in the program from these.

The first group selected totaled 492 or just over 14 per cent of the ninth grade enrollment in St. Paul.

The Instructional Program

The instructional program was determined by the teacher committees. It was felt the program should be planned year by year rather than simultaneously for two reasons. First, all teachers involved were carrying a full teaching load in addition to this planning, and the monumental task of organizing the basic idea into a usable program was carried on after school and on week ends and holidays.

The second reason for installment planning lay in keeping the program as flexible as possible. Changes suggested by actual operation of the first year classes could thus be adapted into the following year's plans with greater ease.

Mrs. Pilch characterizes the program as "accelerated horizontal enrichment." She is quick to point out that mere acceleration is by no means revolutionary and lists a number of cities carrying on experiments of a purely accelerated nature.

"There is much more to our program," she says explaining the Student Developmental Program. "The pace is accelerated in that our students will be completing their basic mathematics and science sequences in their eleventh year, but we have gone beyond this.

"The horizontal nature of the program comes from the same-grade level integration of the subject area. In the past, for instance, science has been taught in a virtually lock-step graded program of biology, physics, and chemistry as if they existed entirely independent of one another.

"As for enrichment, we are introducing newer, up-to-date concepts and techniques that previously have been omitted because of a lack of time. We

student selection



—St. Paul Schools



"seminar internship" in grade 12

have compressed, modified, even abolished some traditional means of presentation to do this."

"Horizontal" Enrichment

Science 9-D ("D" designates Developmental Program classes in both mathematics and science) is an excellent example of the horizontal enrichment. Traditionally, biology has been a tenth-grade study followed by physics in the eleventh and chemistry in the twelfth grade in St. Paul. Science 9-D is an integrated science course with a biology core. Extending from the biology base of instruction, 17 phases of physics and 15 phases of chemistry are introduced in a meaningful interrelation of the sciences. Elements of astronomy, geology, meteorology, and zoology are also introduced in the study of the development and composition of the universe, the earth, and the forms of life on earth.

Chemistry is the core of Science 10-D, and physics will be the core of Science 11-D. In each case, the extended and enriched integrated concept will be developed.

The mathematics program from ninth to eleventh grade is equally extended and accelerated. In the ninth grade, the core of instruction is algebra including graphical representation, quadratic equations, and trigonometric ratios. The work of the tenth grade includes plane geometry, solid geometry, and coordinate geometry. It is hoped that some fundamental concepts in advanced or higher algebra will also be introduced at this level. In the eleventh grade, higher algebra and trigonometry will be extended considerably and some calculus may be introduced.

Seminar-Internship

The twelfth-grade seminar-internship is a highly distinctive feature of the Student Developmental Program in both mathematics and science. Estimates indicate that students enrolled in the program should be sufficiently well grounded in these fields to undertake significant individual and small group seminar-type work. Complex research of a special nature, chosen with the approval of the instructor, will be studied for solution and proof. Students wishing to study specific problems may serve internships during the year working in the laboratories of community industries.

The Student Developmental Program was opened with a teacher workshop in August, 1957. At the opening meeting, A. A. Heckman stated that the Hill Foundation hoped the program would "demonstrate the feasibility and the desirability of the public school program going farther than ever before in individualizing its offerings to better meet their (the student's) . . . needs and capabilities."

The Teacher Workshop

During the week-long workshop, the mathematics and science teachers were introduced to the many aspects of the experiment. Specialists in the education of the gifted explained instructional techniques for such classes, and the potential correlation of science and mathematics was made clear through the instructional guides prepared for Science 9-D and Mathematics 9-D.

An outstanding meeting of the workshop was the presentation of the material and personnel resources of the community available to the program.

Representatives of a dozen internationally known firms and local colleges and universities outlined the part they would play in aiding and supplementing instruction.

Teachers of the classes held special meetings during the first year, but Mrs. Pilch emphasizes that these meetings were not intended to standardize teaching methods from building to building. They met to share problems and to implement their orientation to the less familiar phases of the instruction.

It was impressed upon these teachers that although the sequence of the instructional guides need not be followed, it was imperative that all the content be covered to maintain the scope. In so far as the day-to-day instruction was concerned, the teachers were free to use their own initiative and originality. The guides were references to be used as they saw fit.

Significant Results

Mrs. Pilch, stressing the experimental nature of the program, states that it is too early to make any predictions of the outcome of the Student Developmental Program. However, it seems safe to assume that the interested concentration that has gone into the program will bring about multiple results.

Developmental class teachers have already noted significant reactions on the part of their students to the materials and activities. They report that almost without exception, the students enjoy the different approach to the subjects and are keenly stimulated by the high degree of competition in the special classes. While statistically valid data is not yet available, such important factors in learning motivation are definitely encouraging. ■

In co-operation with the Massachusetts Association of School Committees, Boston University has conducted "Seminars for School Committeeman" as a successful method of in-service improvement of board service at the state university level —

Does election to membership mean that the individual is fully prepared to serve on a board of education? (How many boards, how many superintendents, how many school systems are shaken by the new member who finds all the answers so obvious?) Does a period of experience provide all the insight and wisdom needed? Can someone help the "new man" to become a good board member? Can we help the good member to become better?

School board members face many problems and make many decisions. These decisions may be far-reaching and, through their ramifications, may have effects not foreseen as may, indeed, the comments and activities of an unrealizing board member. While it takes a lot of common sense to be a good board member, it requires even more than that. Boards have been facing problems for a long time, now, and there is a collective understanding among boards which may be greater than that of any single board. The well-trained and insightful superintendent can provide much help, but boards should not rubber-stamp; wise superintendents recognize their own need for technical and professional advice and assistance. Experience can be a good teacher; but the situation is bad if he

who has experience mistakenly thinks he now has all the answers.

An Attempt at In-Service Training

How shall the wisdom and knowledge of "best ways" be made available to newly elected members of boards of education? And through what means may "old hands" in board membership be kept alert to the changing facts of life in their participation in board business. While the Massachusetts Association of School Committees fully recognized the duty of each board to attend to these things, and while it knew that many superintendents were doing much to relieve the problems, it still felt the need for something more and something different. So MASC, of which James W. Whitehead is executive secretary (himself a member of the school committee in New Bedford), decided this was too big a matter to leave to chance. Too much was at stake to let old members get in a rut and to let the initiation of new members depend upon unsystematic procedures.

MASC wondered if universities could help in this vital in-service training of school board members? Since that question was raised, several successful ventures in Massachusetts have now made excellent use of the leadership of

Making Good Boardmen Better

HAROLD L. GEAR

Associate Professor of Education,
Boston University

university staffs to improve the performance of school boards. By pooling the resources of experienced board members, school administrators, practicing architects, lawyers, personnel officers from business concerns, teachers, principals, state department officials, and others, members of school committees (as they are known in Massachusetts) have come to have a far better working knowledge of their jobs.

The two annual series of Seminars for School Committeemen have proved that, given a chance to look beyond the local horizon, school board members are eager to share what they've learned, and, more importantly, to listen to specialists, to ask questions of them and of each other, and to learn how to go about getting the answers to their problems. The seminars were timed to coincide with the advent of new board members and with annual reorganization.

The officers of the Massachusetts School Superintendents Association have given support and guidance to the idea proposed by the Massachusetts Association of School Committees. State and sectional officers of both groups have joined in planning a program of action. The state is too big for one center to serve it, so three universities, representing geographic portions of the Commonwealth, undertook the management of the Seminars. Clark University, Smith College of the University of Massachusetts, and Boston University have participated over the two-year period. The Boston University program is described here; the others have been comparable.

Boston University's Program

A planning committee from the superintendents and school committeemen's associations joined faculty personnel in several informal luncheon meetings to decide the types of programs, and to approve the details of time and place and financial support. The University's faculty was then charged with arranging and managing. And here is what came out:

- A series of six meetings, one per week, held at a university center.

- Each of the first five meetings is devoted to study and discussion of a specific topic and problem.

- During the first hour, board members, superintendents, teachers, college professors, attorneys, state department officials, businessmen, personnel experts, and others—usually in panels of two to five—present an overview with problems and suggestions.

- A "break" for coffee and cookies gives opportunity for people to meet, trade ideas on "this is how we do it" and "here is our problem."

- A second hour sees the board members (and their superintendents who also attend) asking questions or replying to them, extending the discussion of the topic

to make it specifically applicable to their own situation.

- The sixth meeting is in the nature of a banquet in a university facility with a speaker of renown addressing the members of the Seminar and their guests on a "broad-look" approach to the responsibilities of school board membership.

The Topics Treated

What sort of topics are dealt with? Here is what happened in 1957:

1. "What should the school board member know about school law?" A lecture by prominent legal counsel often employed by school committees.

2. "School committee relationships to the formulation and execution of policy." A school board chairman, a superintendent, a member of the state board of education, and a bank vice-president in charge of branch operations showed how policy execution and policy formulation are related.

3. "The role of the school committee in the instructional program." Three university professors described what they saw as they worked with local districts.

4. "Economies and practicalities in long-range planning for school housing." A building program consultant and the officer who supervises state aid in construction and planning discussed the needs as they saw them.

5. "How do you know how much to pay school employees?" A superintendent from one community, an assistant superintendent (for personnel) from another, the director of research for the state teachers association, and the personnel director for a large business shared ideas.

6. "School committee responsibility for leadership in public education." A distinguished university professor of educational administration addressed the seminar. And here is the program for 1958:

1. "Law as a guide to committee action." Two attorneys, each serving on a school board, one a university professor of law, the other the legal counsel to the state school building assistance commission, spoke and led the discussion.

2. "How shall we plan to house our schools?" When and how to remodel, to add, to build. A prominent school architect and a consultant in school building programming involved the group in discussion.

3. "School committees should have policies, rules, and ethics as guides." A respected superintendent of wide experience shared the platform and the subject with a school committeeman who is an attorney and a leader in the state association.

4. "To what extent is the school committee responsible for the instructional program?" First a respected school committee, its superintendent, and a department head demonstrated its monthly practice of having a report from a representative of the professional staff as to the program in her area, its strengths, and its needs. Then a principal, an assistant superintendent, and a school board member led the discussion.

5. "Hot Potatoes for school committees: how to handle them." A superintendent, noted for his willingness to face up to

issues, and three school board members from different towns, described specific hot potatoes (teacher certification, athletics, and pressure politics) as they have faced them—then the entire assemblage participated.

6. "The number one educational shortage." A distinguished educator and writer analyzed the need for policy and direction in American education.

Results of the Seminars

Participation in the seminars is entirely voluntary, yet some members regularly drove more than hundred-mile round trips to attend sessions. Over a third of the state's districts participated each year; a flat fee entitled any or all board members and their superintendents to attend any or all sessions. More than half of the members of these boards attended at least one session. Many boards had all their members in attendance at some meetings; 30 individuals attended all the sessions. Representatives of Leagues of Women Voters attended the sessions. Newspapers in the area sent their education reporters to "bone up," too. The University News Bureau gave complete coverage to local papers.

Many boards participated even more vigorously in the second year, for they had found the value of swapping ideas. Newly elected members expressed satisfaction with the eye-opening discussions of problems, issues, and values. Experienced board members seemed always to find some new insight which made their assignments a bit easier to understand; some even confessed surprise at learning of their own erroneous "knowledge" or interpretation.

Superintendents remarked that during their rides to and from the seminars, their board members discussed local applicability of what they had heard, and the administrators have appreciated the service rendered to their board members as well as to themselves. Through nearly every meeting the theme recurred that superintendents and boards must work as teams and that boards must learn to use even more efficiently the services of their professional executives.

The inferences are clear. Superintendents, individually and collectively, have a challenge to demonstrate an increased competence in leadership in educational policy formulation and decision making. Board members have an obligation to learn more about their own responsibilities as well as to improve their understanding of the educative processes they control.

It is possible to make good board members better. And the trained and experienced staffs of universities can aid significantly in the in-service improvement of school board membership. ■

how the board and superintendent

A harmonious board and superintendent: a top requisite for effective schools . . .

And unity is possible within the following framework of what duties the board expects of its executive and what the superintendent should receive from the board.

What the School Board Expects of the Superintendent

The school board and the superintendent of schools must work as a team if the children of a community are to have the type of education the community is able to provide. In an effective arrangement, the board expects certain responsibilities to be carried out by the superintendent. The following are some of the important duties of the chief executive of the board:

1. Recommendations

Board members naturally expect the superintendent to make recommendations to the board. They expect him to be the spokesman in favor of his recommendations. The superintendent should be well informed and should say what he thinks is best for the district.

The superintendent should realize at the same time that the board is morally and legally obliged to consider carefully these recommendations and that the board may bring to the discussion points of view which the superintendent has failed to see. From the requisites of a good school organization is the ability to face all sides of a problem and even to disagree agreeably. The superintendent, therefore, must not consider it a lack of confidence when the board occasionally fails to go along with one of his recommendations. (Continuous disagreements usually means, however, that the school children suffer.)

After a decision has been made on some of the superintendent's recommendations, both the board and the superintendent must support it.

2. Advance Agendas

The board expects the superintendent to send out the agenda items several days in advance of the meeting with pertinent information concerning the problems which are to be on the agenda. This would give the board a chance to be thoroughly informed before making a decision. Sometimes a superintendent may have an item of importance on which he wishes action, but he was not able to include it on the agenda mailed to the board members. The night of the board meeting he includes this item on the agenda. If such a situation occurs, board members fear that a hasty and perhaps unfortunate decision based on incomplete evidence will be made. The superintendent should understand this reluctance.

DR. JOHN M. COOPER

President, Los Angeles, Calif., County School Trustees Assn.

(It is recommended that this procedure be followed only in dire emergency.)

3. Citizens and Board Meetings

A policy of the board should be that citizens should not be denied the right to speak at board meetings even though they were not able to get on the agenda. The board expects the superintendent to have a well-organized meeting program, but this does not include refusing citizens the right to present their opinions — even in an impromptu manner.

4. Final Authority

The Board of trustees is elected by the people to set the policy for the school district. It does not want the superintendent to get over into the realm of policy making. The board would like to have the superintendent bring to its attention areas in which a policy might be needed but leave the policy making itself to be determined by the board.

5. Keeping the Board Informed

The superintendent's report on the "state" of the district is one of the most important parts of board meetings. The superintendent should be well versed in all problems concerning the school district. He should share these problems with the board of trustees so that no problem hits the board "cold." Sharing of information is not done at the desire of the superintendent alone. This is the cause of many board-superintendent misunderstandings. However, the minutest details should not always be loaded on the board unless it is necessary or the board asks for a detailed background.

6. Curriculum Affairs

In too many cases, the board of trustees is ignored in the field of curriculum. While it is in reality up to the community

(Concluded on page 26)

can work together as a



What the Superintendent Expects of the School Board

NORMAN B. SCHARER

Superintendent, Santa Barbara, Calif., Schools

A close and harmonious relationship between the school board and the superintendent is essential to the efficient organization and operation of any school system. Mutual respect and clear-cut understanding are basic to such a relationship.

It is generally emphasized that the superintendent has definite responsibilities to the board of education. It is emphasized less frequently that the board of education has responsibilities to the superintendent, and through him, to the school system as a whole. Some of these responsibilities are defined as follows:

1. The Board's Proper Function

A board of education serves as the legislative and policy-making authority for the school system, and board members should confine their activities to this broad function. The administration of the school system should be left to the superintendent, since he is hired by the board as its chief executive officer for this very reason.

This principle does not infer that the board of education should not make suggestions to the superintendent regarding administrative matters, or that the superintendent should not make suggestions to the board regarding policy matters.

2. Written Policies

For purposes of consistency, direction, and common understanding, it is essential that a school system have written policies. The scope and number of such policies would depend upon the local school district. It is most inefficient and time-consuming to search board minutes for information on specific policy actions of the board.

3. Preparation for Board Meetings

A board member should familiarize himself with details of the agenda prior to a board meeting. This is important if the meeting is to move along efficiently, intelligently, and

as rapidly as possible. Reading the agenda in advance of the meeting will also give the board member time to call the superintendent or other members of his staff regarding information he feels is pertinent to the various items of business to be discussed.

4. Private Board Meetings

Excepting for meetings at which the superintendent and his status are discussed, there should be no informal meetings of the board without the superintendent's being present. As the board's chief administrative officer, it is the superintendent's duty to carry out the policies and directives of the board. If he is to do this successfully, he should have every opportunity to avail himself of background information on the thinking of the board. Violation of this principle clearly indicates that the board has lost confidence in its chief administrative officer and no longer accepts his leadership.

5. Evaluation of the Superintendent

The board's formal evaluation of the superintendent approximately once a year is very important for the direction and guidance of the superintendent. Such an evaluation could well include the superintendent's successful leadership in the areas of curriculum, staff selection, staff relationships, public relations, fiscal management, etc. This evaluation should be in addition to any suggestions given casually to the superintendent throughout the year. The formal evaluation of the superintendent could well be made at his request.

It is suggested that the board meet without the superintendent for this purpose in order that a full and free discussion may take place. This meeting should be followed by a meeting between the board and the superintendent to discuss the ideas and suggestions developed in the first meeting. The president of the board could well have a preliminary discussion with the superintendent between these two meetings.

6. Superintendent's Salary

The superintendent has a right to expect adequate salary for his services. The board should freely discuss this matter with the superintendent at the proper time without embarrassment to anyone. The superintendent's salary is part

(Concluded on page 26)

to determine what shall be taught in the local schools, the community does through its board of education. When it comes to the technical aspect of "how" (even the extent of the "how" is under scrutiny in some districts) a subject is to be taught, it is recognized that this is the province of the professional educator, but the "what" is the just concern of the community through its trustees. The board should have matters of curriculum brought before it from time to time and as circumstances warrant.

7. The Financial Status

The board should know the assessed valuation, the tax rate, the cost of running the school, etc. When the superintendent comes up with a considerable sum of money about which the board had no previous knowledge, it quickly loses confidence in the superintendent's ability as a financial manager.

8. Handling Administrative Affairs

Unless a controversy of a really grievous nature arises to justify the board's concern, the superintendent should make all administrative decisions. That is, when a "toughie" in personnel, or in any other administrative area comes up, the superintendent should not "pass the buck" to the board and avoid his responsibility. (Again, the board must back up the superintendent in his reasonable handling of administrative matters.)

9. Long-Range Planning

The board expects the superintendent to take the leadership in long-term planning for the district. He should bring before the board the best possible forecast concerning the future needs and future ability of the district. And this should be done far enough in advance to avoid serious problems. As an example, if a bond election should fail, there should be enough time for another presentation before the educational program begins to suffer drastically.

10. Personnel Administration

Nothing can cause more trouble in the school district than a group of employees who are dissatisfied and bickering. It is hard to get good community support under these conditions. The board considers the ability to "lead" the personnel in a satisfactory manner one of the prime requisites of a good superintendent.

11. Citizen-Board Relations

The superintendent must not be upset by the fact that citizens go to the board for information and to discuss certain matters. What the board members said to the citizens should be repeated to the superintendent, as well as to other board members, for co-ordination of effort. For a board member to say continuously, "go see the superintendent," is not good public relations. On the other hand, to give decisions without knowing the facts is trouble provoking.

12. "Dividing the Board"

The board expects the superintendent to deal with it as a unit and not to follow a policy of "divide and conquer." The board looks with disfavor on the practice of a superintendent's trying to influence decisions of board members singly, perhaps outside of board meetings. The "divide and conquer" concept is an old technique—that eventually divides the superintendent from his job. ■

of the annual budget, and could well be considered when other salaries and expenditures are under consideration. If the board needs help or advice on this subject, there are ample and adequate surveys available.

7. Referrals to the Superintendent

It is expected that parents and citizens will ask questions of board members, and that board members will be able to answer those of a general nature. Other types of inquiries should be referred directly to the superintendent, with the understanding that if the superintendent does not handle the inquiry satisfactorily, the person should contact the board member again.

8. Information Requests From Superintendent

The superintendent should not be publicly surprised or "caught off guard" by the board members on any occasion. While it is generally expected that the superintendent will know a great deal about all phases of the educational program, he cannot be expected to be able to quote all of the statistical facts and details concerning every phase of the program. Whenever possible, the superintendent should be advised in advance of the need for such detailed information in order that he may be properly prepared.

9. Support With the Community

As long as the superintendent is employed by the board, he has a right to expect that the board of education will support him in the community. Board members are certain to hear criticisms of the superintendent, but it is essential that no board member give credence and support to such criticisms without investigation and verification of the facts by the entire board.

10. Knowledge of Educational Matters

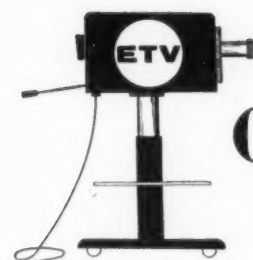
Board members should be informed about educational techniques, philosophies, policies, and trends. They should also have a broad general knowledge about all phases of the educational program for which they are responsible, including what is being taught and how it is being taught at the various grade levels. Board members share with the superintendent the responsibility of interpreting the educational program to the community. They must also be in an informed position to discuss educational problems with other members of the board, the superintendent, members of the staff, and members of the community.

11. Social Relationships

The board members and the superintendent should be on good terms socially. For example, it would not be out of the way for them to attend an athletic event as a group of friends on a holiday. The school system might be the major topic of conversation on such an occasion; but it would be unethical to determine any policy or to make any other decision on such an unofficial basis.

12. Board Member — Superintendent Contacts

The superintendent should not be expected to deal with each board member as an individual on matters relating to the schools. He may ask the advice of the various members from time to time, but such contacts should be entirely "above-board" and never on the basis of negotiating with individual board members. A school board is set up as an official unit of government, and it should be considered as such by its individual members and its chief administrator. ■



Cincinnati's Adventure Into ETV

This second article in a definitive, three-part survey of ETV describes Cincinnati's experiences in determining how best to use educational television for direct instruction: what lessons to televise, how to form a curriculum guide; how to select TV teachers, how to prepare programs, etc.



ROBERT P. CURRY
Assistant Superintendent
Cincinnati, Ohio, Schools

The problems involved in securing the funds to erect and equip a television station are many and require much time of many persons. But once an educational station is established, its successful operation presents still another series of problems which are far from solved even when the most skilled technical staff has been employed and the best television receivers have been installed in the schools. Rather, the major concern of the administrative and advisory staff becomes how best to use the facility.

Good educational television is much more than looking at the picture of a teacher while she talks, no matter how erudite the presentation of the lesson or how photogenic the teacher. Were this educational television, it would not be too unlike educational radio. But with television, a teacher can present a lesson, using all the visual techniques at her command while she explains and discusses it. It seems, then, that it is necessary at the outset to recognize that television is most effective when we capitalize on the unique qualities of the medium.

What Lessons to Televise

It is apparent from the many published reports of televised programs that almost every subject in the program of studies of elementary and secondary schools has been televised. Although evidence is lacking relative to which lend themselves best to instruction by television, it is probable that common sense can aid in making many of these decisions. For example, some aspects of chemistry or biology, particularly those

that require close observation, sometimes can be taught better by television. It is obvious, however, that an experiment or demonstration that requires observation of color must be taught in the laboratory, at least until color television is available. Similarly, an effective teacher of mathematics can provide outstandingly fine basic instruction by television, but work in mathematics where needs of individual pupils demand constant attention does not lend itself to televised instruction.

It should be noted that here, as in the preceding pages, it is assumed that the effective use of television presupposes a close working relationship between the television and classroom teachers. This co-operation is of paramount importance and must be present from the very first meeting to plan the first program. It has been the experience in Cincinnati that all persons involved, the teachers and persons responsible for the production of the telecasts and those responsible for the supervision of instruction, must agree upon some outline of the material to be taught and upon which portions are to be televised. As a result, it seems most profitable to produce curriculum guides for use by both the classroom and television teachers. Admittedly this is time consuming, but it seems to be the best guarantee to co-ordinate instruction by both teachers and to capitalize on the use of television to do those things for which it seems best suited.

In addition, this procedure recognizes that television is only one method by which capable teachers can supplement and improve the instructional program.

It tends to discount the idea that the use of television in education demands a new type of teaching specialist. It is true that teaching by television demands or at least emphasizes certain techniques, but of most importance, it requires skilled teachers using a new medium.

Finally, it is as foolish to assume that the production of a curriculum guide guarantees success in the use of television as it is to assume that the publication of any bulletin will change automatically the instructional program in the classroom. Rather, it is as necessary to implement the television guide in all the proved ways as it is with any other teaching guide.

The Staffs, Technical and Teaching

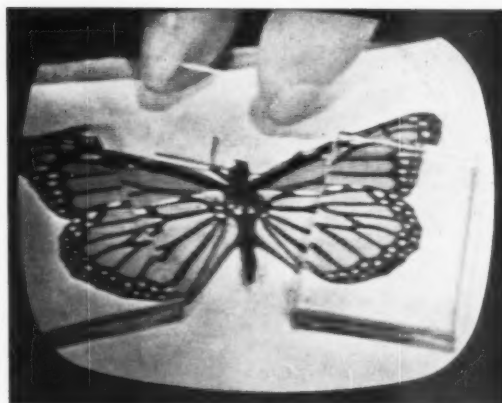
It has been Cincinnati's experience that such a procedure requires a staff of competent technical persons at the studio. The size of the staff obviously varies with the type of station and the number of programs produced so that each situation is different. In addition to the technical staff, we believe it is important to have one person familiar with the use of television, the production of lessons, and the instructional program in general charge of all television personnel. This person, a member of the supervisory staff, reports directly to the assistant superintendent in charge of instruction and must, in addition to the supervision of the televised lessons, work closely with the teachers, supervisors, and administrators involved. In addition, one or more persons who are producers must give technical help to the television teacher, work with the technical crew at the station who usually are not entirely familiar with teaching techniques, and provide the television teachers with the various aids, such as visuals, which contribute markedly to successful televised lessons.

Perhaps this is the place to comment about the selection of the teachers. It is almost trite to say that the most important criterion is the ability to teach; that is, television teachers should be selected on the basis of their competence in the area to be taught and their ability to relate well to others. The qualities and characteristics usually associated with commercial television performers, such as dramatic skills or physical attractiveness, are not nearly so important in educational television as one might assume.

ETV: An Exacting Master

Only after the television teacher has been appointed, the teaching outlines produced, and the co-ordination between television and classroom teachers agreed upon, does television assume the characteristics of a different technique

A definite asset in ETV which should be integrated into instruction by television: the possibility of large, closeup views of slides and specimens to demonstrate technical points.



of teaching. Television is a most exacting master. Good television teaching requires the most careful advanced lesson planning. It demands that we focus the viewer's attention on the items of interest and importance and that we eliminate distracting factors. It will not tolerate any sustained period of inactivity, be it verbal or physical, with the result that it requires the most careful timing and co-operation of all persons involved in the production of the lessons. In addition, it demands systematic rehearsals for reasons of timing alone. This does not imply that the teacher memorizes a script; rather, the script serves as an outline and allows the necessary pacing which helps to guarantee the desired naturalness so important in effective television teaching.

It is important that school administrators recognize that all of this is time consuming. Just as it is a full-time job to teach in the classroom, it is also a full-time responsibility to teach by television. It has been found, for example, that approximately 20 hours of preparation are required to produce 30 minutes of good televised lessons. If two persons, a teacher and one who prepares visuals and helps in the planning of all aspects of the program, work on each program, it is obvious that each is working to about the limit of his time. There is no question that programs can be produced in less time, but it is doubtful if they will utilize the full potential of the medium.

Visual Aids and Reception

In addition, the dictates of television require the wise use of every possible visual device if the medium is to be used to best advantage. It is also most effective to pace teaching to allow for pupil participation of various kinds, be it the taking of notes, the writing of questions to be raised with the classroom teacher, or the responses of pupils in the classrooms. Finally, while show-

manship in the usual sense is not necessary and may even detract from the effectiveness of the lesson, that type of showmanship which makes a pupil look forward to the next day's lesson is much to be desired. Conversely, a lesson can be even more dull on television than in the regular classroom if motivation is lacking. It should be emphasized, however, that television teachers and producers still have much to learn about the use of the medium. Since no one has been using educational television for more than a few years, far more needs to be known about all aspects of teaching via television. The need for continued study and research should be emphasized.

There remains now the question of the reception of the lessons in the classroom. Past experience seems to provide no recommendations for any single set of conditions. For example, it seems at this time on the basis of limited evidence that the number of persons viewing the televised lessons does not necessarily affect the amount learned by pupils. Similarly, there are no criteria to govern all situations in which televised lessons are to be received. Cincinnati's experience seems to reinforce what every home viewer knows: the set should be placed so that the viewer does not look into artificial or natural light, that glare on the screen should be avoided, that the contrast between the screen and the surrounding area should be minimized. It has been found, however, that about 25 pupils should view each receiver, that the viewer should sit no closer than 12 to 15 feet to a 21-inch set which is elevated from about 4½ to 6 feet, and that the sound should emanate from the front of the receiver. Obviously, any such arrangement needs to be varied in terms of technical advice. ■

The final of these three articles, to be published in your JOURNAL for April, concerns the evidence available to show how well pupils have achieved in those ETV instructional areas that can be measured.

In the administration of schools

Why Not Save Money?

OWEN J. COOK

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- ▶ Caught on an economic rocket, many boards must strain their financial resources to support the current school program.
- ▶ If additional state appropriations or local taxes are not forthcoming, there will be fewer services, less equipment, fewer supplies, etc.
- ▶ Schools, however, can obtain more for money now available by doing what industry has done: force a more economical operation.

When we look ahead at the economic future of school districts, we realize that financially they are in for extremely rough sledding. According to the experts, we are moving into another national inflationary period.

Labor is meeting inflation by demands for higher wages backed up by strikes. Industry is meeting inflation by increasing the cost of their product. Higher prices for consumer goods combined with higher wages for labor puts tremendous pressure on school boards who try to keep in line salarywise with the inflationary spiral.

In an effort to keep in line with the economic rocket, boards of education have adopted salary schedules which demand support beyond their financial ability for more than a year or two. Many districts are living from year to year using the total available financial resources to support the current educational program, hoping for a greater state appropriation or for a favorable vote on local taxes in order to keep the program going.

School boards have been fairly successful in securing additional local taxes. There is increasing evidence, though, that taxpayers feel inflation has gone far enough and that school districts must learn to live on the money now available. When additional funds are not forthcoming from state or local sources, it means next year's budget will provide for fewer services, less equipment, and fewer supplies—and the following year's budget may provide for even less.

Ways to Economize

There are ways by which districts may answer their own financial problems, partially at least. Not all of the money now available to schools need be spent. Because they do not need to show a profit on their operation, school personnel frequently feel no incentive to force a more economical operation each year as industry has done. The increasing difficulty of financing present services, however, should provide that incentive.

Simplify Operations

A study of unified school districts' costs in California for 1956-57, as an example, shows a range of 1.9 to 15.7 per cent of the current operation budget being spent for administration. The average is 3.9 per cent. Dollar costs per pupil in these same districts range from \$6.93 to \$81.74, with the average being \$12.25. Obviously, some are badly out of line on expenditures and other categories of current expenditures. By careful comparison of costs and services with other districts can higher-cost administrations correct the situation and eliminate waste.

There should be a continuous simplification program. No one individual can do this. In one district, department heads, the most lucrative source of work simplification ideas, are required to report suggestions for work simplification in their departments periodically. The department head, in order to keep up steady improvement, in turn requires each individual in his department to report to him at frequent intervals.

Paid employee suggestion systems are not necessary in order to solicit suggestions for reduction of paper work or its entire elimination. This becomes a real and interesting challenge to an alert employee.

Department heads should be aware of methods, procedures, forms, and equipment being used in similar school districts. They should also be given time and be required to visit their counterparts in local industries. The attitude needs to be developed that somewhere another school system or some industry or business is performing a similar function better and more economically. Simplification means smoother operations requiring fewer employee hours.

School administrators should continuously engage in research and be aware of and alert to research carried on by the state departments of education, universities, and other school districts. Smaller school districts should study possibilities of investment in research carried on by larger districts.

Careful control of paper work will reduce personnel required. Snap-out forms and manifold with snap-out carbons can be used to advantage in accounting and purchasing offices as well as in requisitioning of supplies. Forms should be studied continuously for improvement and elimination of the high cost of writing.

When administrators dry up on ideas to stretch the school dollar, it is time to spend a little money to bring in survey experts to study particular operations.

Check Labor Distribution Formulas

Personnel are frequently allotted to schools on a formula basis. There are formulas for assignment of custodians, clerical personnel, teachers, counselors, and others.

Nothing is sacred about the use of a formula for assignment of personnel. Its main advantage is that it is objective. Formulas from district to district differ considerably. One formula is more economical than another. For non-certificated positions, the most economical formula available should be used if the standards of performance are satisfactory under the formula. The trouble is that formulas are adopted, put into use, and because they seem to work satisfactorily, are not evaluated often enough. The formula itself can be extremely wasteful.

Study Clerical Work Load

There are many pressures within a district for more clerical personnel. Before a board increases clerical personnel, however, a study should be made of the methods, procedures, forms, and equipment in use. From a one-half-time to a full-time clerk should be

able to handle elementary schools up to 1000 enrollment.

Nearly all elementary schools in a given district will have need for the same forms. Elementary secretaries spend a good deal of time during summer months preparing forms for the coming year. Where this is done by each secretary, the forms vary in shape, size, format, readability, and usefulness. It is possible, through co-operative efforts, to determine requirements needed in all schools, standardize the forms, use snap-out, have them printed and placed in a central spot (warehouse) for distribution on an as-needed basis.

The result of standardization of forms means less clerical hours for producing forms, less clerical hours for using forms, and more effectively usable forms. There are many other means of reducing clerical requirements. Each office should be adequately equipped. Central office administrative requirements can be controlled; requests for information, reports, and other clerical time consumers can be controlled. And there are several other ways to get efficiency than by developing good procedures and forms: use good equipment, select competent secretaries, etc.

Watch Accounting Costs

Another lucrative area for cost savings is financial and pupil accounting, a field greatly neglected by research studies. Here, again, the procedures, forms, and equipment should be carefully analyzed. Each report required by the board and the administration should be examined to see whether it is worth the cost of producing. Routine financial reports should be kept to the minimum and special reports taken off only when and as needed to keep the board and administration properly informed.

There is a tendency toward too much breakdown in accounting. Each additional accounting code requires time for initial posting as well as summarizing and reporting.

A good example of too much accounting is the way in which elementary school instructional supply expenditures are handled in many districts. Separate appropriations are set up for general instructional supplies, library books, textbooks, audio-visual supplies, office supplies, and others. Instructional appropriations for an elementary school are thus broken down into as many as eight to ten separate appropriations all of which must be accounted for and controlled. Principals are allowed, however, to over-expend in one category if they under-expend in another. While the separate appropriations in accounting actually do not control, they do increase accounting costs.

Accounting can be greatly simplified

by setting up only one appropriation for "other expenses of instruction" which includes instructional supplies, principal's office supplies, books, audio-visual supplies, etc. Reporting is also greatly simplified. Control is better because there is only one figure (uncumbered balance) which a business manager need look at for each particular school. While principals like it better because it gives them greater responsibility, its greatest advantage is that it allows flexibility and adaptability in the instructional program.

There are additional areas for accounting efficiency. Costs for the transportation department sometimes are built up by buses rather than by fleet. The business manager, therefore, becomes loaded with information which does him no good. Costs should be built up by fleet, as public carriers do, rather than by individual bus.

Some business managers can tell you how much glass costs for each particular school. Again, districts become loaded with information which they never use. Cost control is excellent, if by it districts are able to control expenditures. Otherwise accounting should be simplified.

Control Maintenance Costs

Many districts reduce maintenance costs by not doing the necessary maintenance work. This is a poor policy to follow and frequently results in a greater expenditure than otherwise would be necessary. Maintenance should be kept current. Equipment needing repair should not await a new budget and take its chances in the budget with new equipment but should be repaired as needed in order to keep it in use.

Districts can save on maintenance costs in several ways. First, and most important, is to review plans and specifications for new construction. Carefully written specifications should be coupled with careful inspection and testing. A section of a new roof should be cut out and sent to the testing laboratory to see that the contractor has given full weight to each roof. Testing labs should be employed to test compaction, thickness, and aggregate of new paving. By adding a seal coat, paving will shed the water rather than absorb it, thus increasing the life of the paving.

Painting is very difficult to control. The best of materials should be specified. Research laboratories can take paint samples to determine quality of paint and determine whether or not the required number of coats have been applied.

One of the big costs in maintenance is the number of personnel employed. In this respect, districts vary widely.

an inventory of money savers to improve the efficient management of your schools

Simplify operation . . . control paper work and use snap-out forms and carbons; study how industry and other school systems have achieved smoother operations requiring fewer employee hours.

Check labor distribution formulas . . . investigate assignment of custodians, clerical personnel, counselors, etc., to determine that the standards of performance are high and the cost is low.

Study clerical work load . . . from a one-half-time to a full-time clerk should be able to handle elementary schools up to 1000 enrollment with standardized forms, adequate, modern equipment, and report requests minimized.

Watch unnecessary accounting costs . . . cost control is excellent if, by it, schools are able to control expenditures.

Control maintenance costs . . . keep maintenance current to avoid later, higher costs and use skilled craftsmen with good tools and transportation to reduce total number of needed personnel.

Handle insurance wisely . . . consider mutual and exchange insurance companies with non-assessable policies and be sure to put all insurance out to bid.

Cut transportation costs . . . try an hourly basis for drivers and also try using more women drivers on a part-time basis; would it be less expensive to do only minor repairs on school-owned buses?

Look at instruction, too . . . where 75 per cent of the school dollar is expended, use smaller classes only when the teacher gives individual attention.

There seems to be little relationship to the number of personnel employed to do maintenance work and the effectiveness of the program. Fewer personnel are required if skilled craftsmen are employed. These men should have adequate transportation and adequate tools. Men, themselves, can produce many laborsaving devices and many shortcuts without an employee suggestion system.

There should be a proper balance between doing maintenance work with district employees and contractors. A district should be very cautious in

setting up its own roofing crew or in employing its own typewriter repairmen. Certainly, not until the cost of these repairs exceeds the cost of a man's annual wage should a district even think of adding people in these fields.

Handle Insurance Wisely

It has been known for some time that districts can save money by putting certain insurances out to bid. These include liability, boiler, and musical instrument floater insurance policies.

There are reliable insurance com-

panies which write fire insurance on a deviating basis, say 10 per cent below other companies, and are so approved by the insurance commission to do so.

Mutual and exchange insurance companies should be considered, especially the companies with nonassessable policies.

A sound insurance program, together with a safety program and a good housekeeping program, will produce savings on nearly all insurances.

Cut Transportation

While the best way to cut transportation costs is to increase walking distances, this may be difficult to do. Drivers should not be employed on a full-day basis but rather on an hourly basis. More women drivers should be used. It is generally impractical to try to provide a bus driver with a full day of employment. Some districts have employed only mechanics as bus drivers and their mileage costs reflect this policy.

Most districts would operate more economically if rather than overhaul their own engines, they would pull the engines and send them out to a jobber. Only minor motor repair should be done in the district shop.

Some districts set their mind on a particular brand of bus, usually specifying the body, and write such tight specifications that no other bidders are interested. It is more important that when specifications are written on the chassis enough flexibility on body specifications is left to invite wide bidding. Many companies will handle the chassis specified.

Look at Instruction, Too

The reader will note that nearly all suggestions given here have to do with other services than teaching or the instructional program. We have been looking, then, at an area where only 25 cents of the school expenditure dollar goes. The 75-cent area of instruction should also be examined for economy.

Small classes are important, especially where the teacher actually gives individual instruction and attention. However, reducing the class size still further is incompatible with present financial support. Districts will be hard pressed to finance present pupil-teacher ratios. Ratios probably will go up unless special service personnel are reduced.

School administrators and boards of education should regard themselves the same as a business or industry must do. More efficient methods must be developed constantly. Production must be increased. There is, perhaps, good reason to believe that more efficient operation will produce a better educational product. ■

FIRE SAFETY IN OUR SCHOOLS

In your *Journal* for November, 1958 (published, ironically, just one month before the fatal Chicago fire), Chester Babcock of the National Fire Protection Association in his article "Stop School Fires" pointed out, in considering what causes "large-loss" fires, that "the answer to this question is the same . . . in any . . . year that has been studied."

The tragic fire at Chicago's Our Lady of the Angels parish school revealed nothing about school fire safety which was not known. The causes of this fire and the fatalities had caused many previous fires and deaths; the remedies for these causes are well-known fire safety principles: the need for adequate exits and well-planned drills, for enclosed stairwells with fire doors, for prompt

detection and alarm by installing automatic sprinklers and automatic alarms (especially in such fire hazard areas as stairwells, boiler rooms, stages, etc.), for good house-keeping, etc.

The real value of the school fire safety investigations conducted in practically every district in the country after December 1 will be an intelligently conceived and alertly maintained fire safety program, not a "crash" program which will be gradually forgotten.

And to help school boards and their administrators design such a program, we present this survey in which: (1) the Chicago fire commissioner explains what must be done, (2) the school consultant for the National Safety Council outlines who has what duties in this intelligent fire safety program, (3) and two school maintenance experts discuss basic facts about automatic fire protection devices and fire extinguishers.

— Chicago Fire Department



Chicago fire and building inspectors, who viewed the damage at the head of the stairwell of the second floor of Our Lady of the Angels School shortly after the blaze was extinguished on Dec. 1st, found that the school had fire doors on the first floor but none on the second floor where dense smoke and fatal fumes trapped the victims.

What Must Be Done for Fire Safety?

ROBERT J. QUINN

Fire Commissioner, Chicago, Ill.

The tragic Our Lady of the Angels School fire, which claimed 93 lives in Chicago last December, emphasized the importance of fire safety with an indelible mark that only death can etch.

All of us who saw the blaze and participated in the subsequent investigation are, I'm sure, determined to prevent a similar occurrence. It is heartbreaking that it took a devastating fire to impress upon the country's conscience that fire safety must be a continuous and integral part of our educational program and not something that is demonstrated once a year during Fire Prevention Week.

This fire did not teach us anything we did not know, but maybe it will be the lever we need to generate constructive action throughout the country. The time has come for us to adopt maximum fire preventive measures in our existing schools and to plan new fire-safe buildings that will prevent a sequel to the Our Lady of the Angels School fire.

The two factors that caused the heavy death toll in the Chicago school fire were the failure to detect the blaze in its first

few minutes and the delay in giving the alarm. Firemen have an old axiom that "the first five minutes at any blaze are worth the next five hours." The fire at Our Lady of the Angels had been burning for some time before the alarm was sounded, and our firemen did a magnificent job in helping scores of trapped children flee the smoke-filled building.

Three Chicago Ordinances

Mayor Daley proposed three ordinances on December 22 that are designed to prevent fire, and second, since fire cannot be stamped out completely, to detect it as soon as possible. These measures were passed by the City Council on January 22. I think that every community in the country should seriously consider these ordinances, which would incorporate sound fire-preventive measures into every school, regardless of its age.

The first ordinance calls for the installation of automatic sprinkler systems in all institutional-type buildings, including schools. This type system is set off whenever the temperature reaches a certain

point and an alarm is triggered. We have found that automatic systems are necessary because approximately 65 per cent of all school fires start when the building is unoccupied.

I also recommend that existing schools install an inexpensive system of scuttle holes placed in various locations in the roof which would afford a suitable protection against the spread of any possible fire. These covers would open automatically, permitting any flame or gases an escape route through the holes and out over the roof.

The second of the mayor's proposals stated that the school fire alarm systems be linked to the fire department's alarm boxes. This will provide direct and concentrated response to any school fire alarm. A fire alarm box should also be installed within 100 feet of every school entrance, because statistics show that the majority of school fire alarms have been turned in by outsiders.

Automatic alarm systems are particularly effective in areas where traffic is low and fire risk is high — basements, closets, attics, boiler rooms, etc. Both teachers and pupils, however, should be trained to sound manual alarm boxes immediately in case of any type fire, even before reporting it to the office.

Our regular fire inspectors will be an important part of the mayor's third recommendation, which calls for monthly fire drills in all schools. In addition to a strict inspection of the premises, the firemen will conduct a drill under simulated fire conditions. All personnel, including visitors, nurses, and other school workers, will participate to achieve total evacuation of the building.

Every fire drill our department conducts simulates a fire condition somewhere in the school, such as a blocked off exit or corridor. Alternate drill routes must be prepared before the school year begins, so that both pupils and teachers are well aware of the escape routes. Drills help prevent panic, which can cause a staggering loss of life under severe fire conditions.

Good Housekeeping Is Important

The regular inspections will insure excellent housekeeping in our schools, which is the best fire prevention measure at our disposal. Hallways, corridors, and stairwells, must not be used for the storage of combustibles of any nature, and students should not be allowed into custodial areas.

All refuse should be stored in covered galvanized steel trash cans, and kept in a fire-resistive area under custodial control. Old furniture, trash, and lumber scraps should be removed immediately. There was evidence that wastepaper had accumulated under the stairway at Our Lady of the Angels School, and this fire might have been prevented or controlled if covered metal containers were used for temporary

storage. Such potentially dangerous items as oily rags and mop heads also should be kept in covered metal containers. Proper incineration equipment should be provided in a segregated service area, and outside open burning pits for paper disposal should be prohibited since flying sparks might ignite nearby buildings.

Garbage and trash also should be kept in covered metal cans outside the building. This area should be kept tidy at all times.

Enclose Vertical Passageways

The fire at the Our Lady of the Angels School, which the coroner's jury found to have started somewhere in a basement stairwell, bypassed the first floor and roared through the second floor. Fire doors had been installed at the school about 12 years ago in the first floor corridors, but not on the second floor. All the deaths occurred on the second floor where the deadly smoke and gases took their heavy toll. Most people fail to realize that smoke, not flame, is the No. 1 killer in major fires. I can't think of a more deadly combination than rising heat and combustion gases.

Since heat, flame, and deadly gases rise quickly, all vertical passageways should be enclosed with incombustible construction. Fire barrier doors, which are vital if a blaze is to be confined to the room or area of origin, should be installed on all corridor and room partition openings.

While automatic sprinklers, fire doors, and a comprehensive alarm system are vital to school fire safety, there are many other facets of school construction that should be considered. We in the fire department have worked with the building department, the Coroner's Jury, and National Fire Pro-

... Schools that lack adequate exit facilities and approved types of automatic sprinkler or detection equipment, and which possess excessive amounts of highly combustible interior finish, substandard fire alerting means and poor housekeeping conditions must be rated as "fire traps." School and fire authorities must take affirmative actions to rid their communities of such blights.

**— The Chicago School Fire
Babcock and Wilson, National
Fire Protection Association,
Boston, Mass.**

tection Association to adopt a fire safety code that includes the following recommendations:

1. Remove or nail shut all glass transoms over doors leading into hallways. Ordinary glass in corridor windows should be replaced with wired glass.
2. Mark all manual alarm switches conspicuously, and place them not more than four feet from the floor.
3. Install fire extinguishers on walls at waist height for easy reach.
4. Make it illegal to wedge open any fire safety door.
5. Install swinging smoke barrier doors in hallways over 300 feet long.
6. Require that only electrically lighted exit signs be permitted on school property. Remove all gas lights.
7. Install automatic heat or smoke detection units near exhaust fans to simultaneously sound an alarm and shut off the fans.
8. Prohibit the nailing of screening over schoolroom windows through which persons might escape in an emergency.
9. Limit school room occupancy to one pupil per 20 square feet of floor space to prevent overcrowding.
10. Prepare a complete and detailed manual for school personnel, outlining fire hazards and escape routes.
11. Hold fire drills monthly and without advance notice.
12. Outlaw outside burning pits near schools for paper disposal.
13. Require all exit doors be provided with panic bars and open outward.
14. Use flame-resistant paint on combustible trim and ceiling tile.
15. Remove wooden wainscoting and,

marks of the
"fire-safe" school —



— Chicago American



— Galvanized Ware Manufacturers Council



A first rule of good housekeeping in schools is that all combustible materials should be stored neatly in covered trash cans.

Views of a Chicago grade school which has been remodeled to include many basic fire prevention measures. Above is a stairwell enclosure on the second floor with wired glass windows and at the left is a view of a new fire alarm system included in the improvements. The manual alarms are well marked and are located so that the smallest pupils can easily reach them.

wooden lockers in corridors, and combustible blackboards, bulletin boards, and wood trim in classrooms.

16. Require masonry walls and partitions and metal lath and plaster ceilings in old boiler rooms of combustible buildings.

17. Use only qualified electricians for electrical work and wiring.

18. Keep all doors, windows, and locks in operating condition.

It is obvious that these fire safety recommendations will constitute a major expense for both our public and parochial school systems in Chicago, which operate 1050 buildings, but the public is entitled to maximum protection. School boards throughout the country will face this same financial dilemma, but I am sure that right-thinking people will realize their moral responsibility to provide safe schools for the children of America.

A special fire inspection detail checked each of Chicago's schools after the disastrous fire on December 1, and our regular team of ten lieutenants has rechecked 852 schools and 174 building violations were corrected. Partial corrections were made in 351 buildings and 28 schools have submitted plans for fire alarm systems and exit signs. We are currently checking about 45 schools each day, and receiving excellent co-operation from officials.

Check New School Design

Although most of our discussion has been concerned with existing schools, it is imperative that maximum fire prevention methods are planned while the new school is still on the architect's drawing board. All construction plans should be checked by competent fire safety officials to prevent any important features from being omitted. Of course, we recommend that all new schools have sprinkler equipment, fire walls, door cut-offs, and alarm systems.

All new school building construction should be limited to fire-resistive and incombustible materials. An older school, which has maximum fire safety features and good housekeeping procedures, is actually safer than a new school that is lax in its housekeeping. New schools, therefore, are not a guarantee against fire, and well-kept older buildings can be fire-safe.

Safe schools cost money. We know, however, that there are approximately 12 school fires in the country each day. We are fortunate that most of these cause only minor damage, and do not cause injury or death.

After watching and investigating the holocaust at Our Lady of the Angels School, which fanned the pallor of death over so many Chicago families, I firmly believe that we cannot judge expenditures for fire safety merely in terms of dollars and cents. If these improvements save one life, they will have paid for themselves many times over. We cannot put a price tag on human life. ■

What Can You Do for Fire Safety?

CHARLES A. FRENCH

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Chicago, Ill.

This statement is intended to outline suggested fire safety responsibilities of the school board or governing body and all other personnel directly associated with public or nonpublic schools. It lists duties and responsibilities for each of the following echelons having legal and more responsibilities: (1) the school board, (2) the school superintendent and central staff, (3) the principal or the building safety co-ordinator, (4) the classroom teacher, (5) the custodian and other operational personnel, and (6) the pupil.

The School Board

School board members should, by resolution, direct the superintendent of the school district to comply with laws, ordinances, and regulations imposed by local and state authorities for the purpose of providing fire prevention education and operating school plants with a maximum of safety for life and property. A periodic review by the board of progress made by the school system's administrator in conducting fire safety programs should be on the regular agenda. The following, incorporated in policy statements of the board, can set the machinery in motion:

1. A request for evidence of compliance with fire safety laws, ordinances, and directives legally binding the schools.
2. Yearly review by the board of the directives, plans, and procedures established for carrying out local and state fire prevention legislation. This should include an evaluation of the work of the safety education supervisor appointed by the superintendent to be responsible for the supervision and administration of fire safety education and accident prevention.
3. Appointment of one faculty co-ordinator as responsible for all phases of school

safety education and accident prevention including his duties as co-ordinator of fire safety education and prevention.

4. Provision for regular inspection of school premises by legal authorities and by insurance and fire prevention engineers in order to review and improve local and state legal requirements for fire safety education and accident prevention.

The School Superintendent

The school superintendent and the administrative and supervisory staff member(s) he designates as responsible for curricular and administrative programs in fire safety have the following responsibilities:

1. Liaison with all state and local fire prevention authorities to be sure that all fire laws, ordinances, and regulations applying to the school are on file and properly distributed and interpreted to all appropriate personnel.
2. Inspection of each individual school building to determine if all fire laws and regulations are understood and complied with.
3. Investigation and evaluation of the effectiveness of fire prevention education included in the curriculum.
4. Active promotion of co-curricular organizations of fire safety monitors, assistants, etc., in order to expand fire safety education and youth leadership in exit drills, panic control, etc.
5. Liaison with insurance and other fire prevention advisory groups, civil defense authorities, building contractors, architects, and all other organizations and persons equipped to give assistance and training aids useful to fire prevention, disaster control, evacuation procedure, panic control, and first aid.
6. Provision of an effective program of in-service education in fire prevention, exit

drill and alarm regulations, panic control and first aid for all adult personnel of each school, including faculty members, custodians, lunchroom, and clerical staff.

7. Assistance in planning and periodic evaluation of evacuation charts, plans, and maps for each school building.

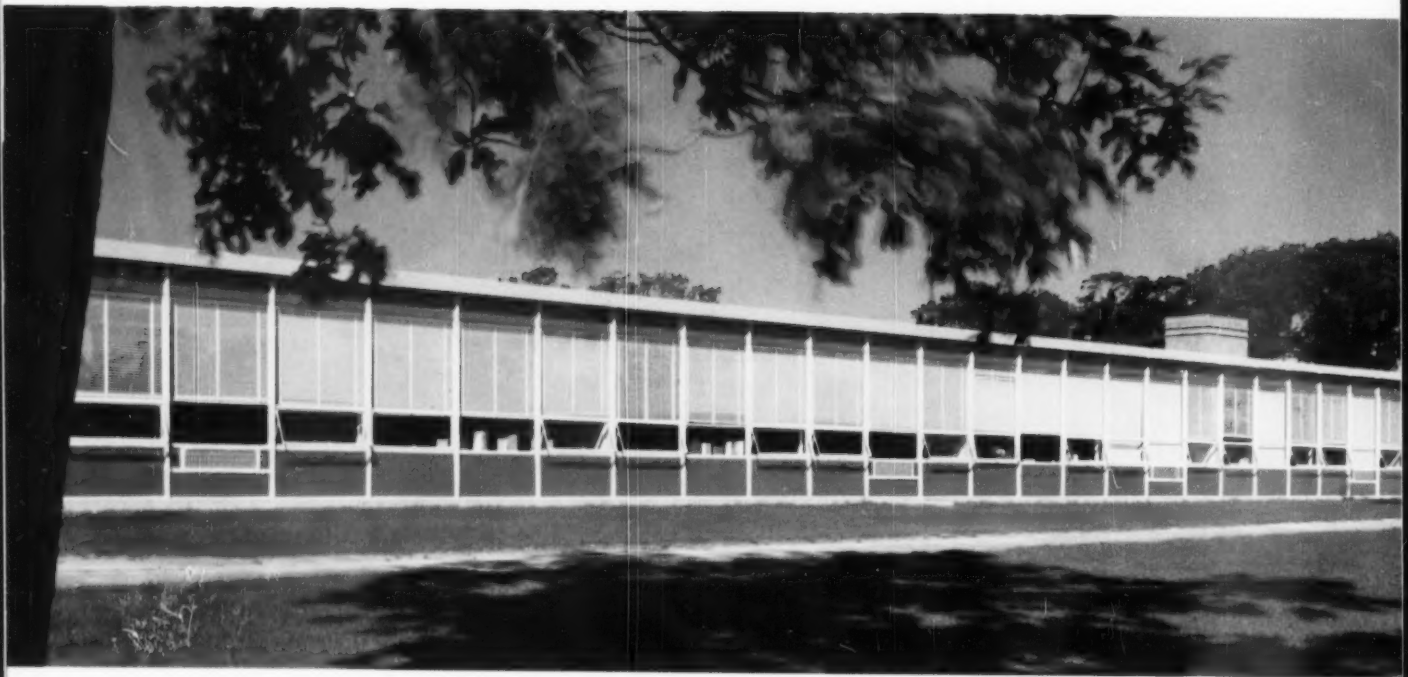
8. Consultation to provide a fire safety check of architect's plans for new buildings and additions.

The School Building Principal

The principal, as the responsible officer designated to carry out all policy directives of the school board and school administration in each school building, should personally and/or through its school building representative provide:

1. Careful compliance with all directives mentioned above in order to be sure that these directives are met with appropriate action.
2. Regular and periodic check of faculty members, other adult personnel, and students of his school to see if fire safety regulations are completely understood and practiced.
3. A complete plan of alarm and evacuation drill procedures on file and posted to inform all concerned.
4. Regular and surprise evacuation drills at least eight times per school year, utilizing various plans of egress, student-teacher leadership, etc.
5. A posted and practiced plan for disrupting electric power or other utilities service during emergencies with tools and instructions available to all adult personnel, as well as the school engineer, principal, etc.
6. Regular inspection of the school plant and program in shops, science laboratories, etc., to eliminate hazards of poor house-keeping, overloading of electric equipment, improper storage of flammables, and many other hazards that develop through changes in school programs, lack of emphasis on fire safety and instruction, and other causes.
7. Checkup on readiness of fire fighting equipment and practice in its use by all adult personnel.
8. Completion of all required reports and inspection forms designated by law, ordinance or regulation, and communication of pertinent facts to appropriate personnel.
9. Competent supervision of fire safety instruction in all pertinent curriculum areas.
10. Adequate preparation of all appropriate personnel in special problems of disaster such as panic control, first-aid, co-operation with public officials, etc.
11. Initiation of requests to officials for fire safety improvements such as the enclosure of stairwells, installation of fire stops and fire doors, elimination of obstructions, use of sprinklers and automatic detection systems, and construction changes found necessary through inspection and

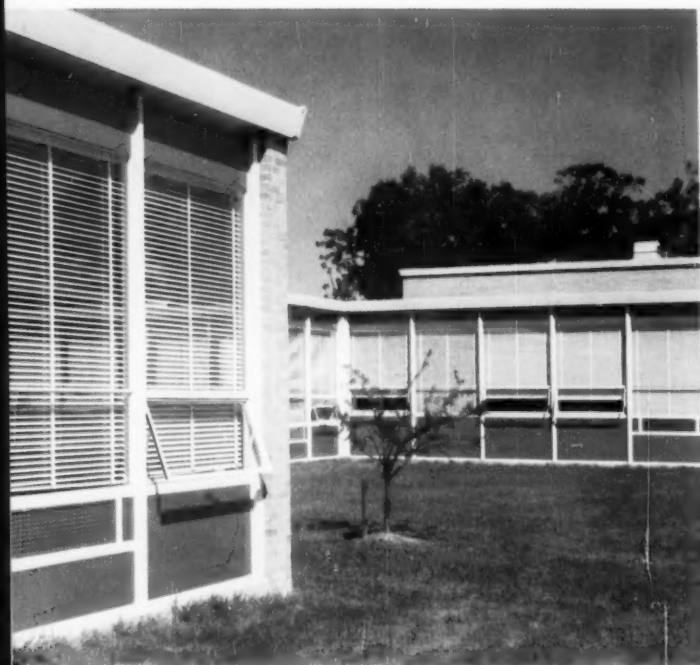
Who says it costs more to build



A *RECENT* magazine article criticized school boards for building school "palaces." It said the schools cost too much.

Hundreds of educators, builders and architects threw back this rebuttal: "Today's schools are beautiful and comfortable, but new methods of construction have kept the cost surprisingly low." Here is one of many examples, the Cherry Avenue Elementary School in Sayville, New York . . . it was built at low cost because it has window walls of steel.

beautiful schools?



They didn't have to pay a large construction crew because these walls were *factory-built*. The porcelain-enameled steel panels, insulation, steel backing, window frames, and mullions were made into floor-to-ceiling units that were delivered ready to go up. A few men erected the complete wall, and they did the job in days instead of months.

They didn't have to pay for a heavy, expensive foundation because steel window walls are light—less than $\frac{1}{4}$ the weight of conventional walls.

The porcelain-enameled steel panels combine the strength of steel with the corrosion resistance of glass. They will never have to be painted, pointed, scraped or resurfaced. They will always look brand new with just an occasional wash—often, rainfall alone will keep them clean.

If you would like to have more information about steel window walls, or more examples of the beautiful schools that have them, write to United States Steel, 525 William Penn Place, Pittsburgh 30, Pennsylvania.

USS is a registered trademark

Architect: Frederic P. Wiedersum Associates, Valley Stream, N. Y.
General Contractor: Gilbert Olsen Co., Inc., Rockville Center, N. Y.
Panel Fabricator: Porcelain Steel Corp., Connersville, Ind.
Subsidiary of H. H. Robertson Co.
Curtain-Wall Fabricator: Hopes Windows, Inc., Jamestown, N. Y.

 **United States Steel**



consultation with architects, builders, fire prevention engineers, etc.

12. Information and requests for improvement to school officials on overcrowding of school building space, lack of sufficient exit and stair space, inadequate number of alarm signal stations, lack of fire resistive building materials, exits lacking panic bars, and other problems of fire prevention, evacuation, and damage control.

The Classroom Teacher

The roles of the teacher, all other adult personnel, and the pupils of the school are of basic importance to the fire safety education and fire protection program. It is with these active participants that respon-

sibility for safety to life truly rests. They must have leadership and direction from school boards, administrators, principals, and others who supervise school affairs, but they must, through day by day attitude development, and positive and disciplined action during the drills and actual disasters actually save lives and reduce injuries. Through leadership given in instruction and by overt example the teacher aids in fire safety by:

1. Utilizing all the dramatic and vivid instructional aids obtainable to accomplish learning objectives about fire and combustion, panic control, methods of emergency exit drills, leadership by teacher and pupils, etc.

2. Using classroom events and subject matter areas as springboards to integrated knowledge, skill, and attitudes on fire safety.

3. Acting safely to give the best possible example to pupils on safe storage of supplies and other housekeeping, safe use of electric equipment and tools, and an appropriate attitude toward evacuation drills and other safety measures. The teacher must be willing to help pupils grow in the development of these same attitudes and develop leadership potential as fire marshals, helpers, and rank and file co-operators.

4. Passing on to the proper officials any insights obtained on fire construction needs, detection and alarm systems, corridor hazards, overcrowding, and all other fire

How to Teach Your Pupils Fire Safety

The Junior Fire Department is a co-operative educational program on the local school district level involving the fire department, school officials, and other interested agencies. Although it is identified by other titles in some communities (the Fire Marshall Plan, Fire School, etc.), the program has the same purpose: fire safety education for school children.

In Boston a Junior Fire Department program was instituted in 1948 through the desire to bring fire prevention education to school children on the part of the Boston Fire Department, the school district, and the Boston Board of Fire Underwriters. Encouraging results were soon reported with an approximate reduction in

fire deaths of 50 per cent and in property loss of 25 per cent.

In South Bend

Former South Bend Fire Chief, Richard Duck, learned of Boston's efforts at a convention of fire chiefs held in that city in 1953. As a result, he gained the financial support of the South Bend-Mishawaka Association of Insurance Agents and the South Bend Chamber of Commerce. After receiving the blessing of the South Bend school board, the program went into effect the second semester of the 1953-54 school year.

Some 600 sixth-grade public and parochial school children were involved the first

year. Today instruction reaches 2500 sixth-grade children in South Bend through the efforts of two firemen whose sole responsibility is fire safety education. These men also work with adults in fire education and public relations, appearing before industrial, fraternal, social, and civic groups.

The Junior Fire Department meets monthly during the school day in a period of 45 minutes to an hour. The curriculum consists of the following eight planned meetings: (1) orientation—introduction to hazard correction, (2) extinguishing fires, (3) electrical hazards, (4) flammable liquids, (5) home evacuation, (6) artificial respiration, (7) house of hazards, and (8) "I'm No Fool With Fire" (Walt Disney movie) and presentation of awards.

Lecture-demonstration teaching techniques are generally employed. Although the class period is an important part of the program, final success must be based on what takes place outside the classroom. Children are taught to inspect only their own home and those of friends and relatives. While the hazard must be located by the child, it may be corrected by an adult. The 20,000 fire hazards which were corrected last year by members of the South Bend Junior Fire Department is a powerful testimony to the effectiveness of the teaching.

Much of the tragedy and waste which results from fire destruction can be prevented through education. As in disease control, prevention is still the best cure. As an agent of prevention the Junior Fire Department program deserves serious consideration in every community. ■

— John Cooper and Steve Horvath, principal of South Bend's Studebaker school and captain of the inspection division of the city's fire department, respectively.

— South Bend Schools



Captain Horvath demonstrates the "house of hazards" to South Bend sixth-grade pupils.

safety aspects previously outlined as necessary to the proper instruction of principals, administrators and the school board as they develop policy.

5. Encouraging school patrons to assist with fire safety education by helping children obtain certain information and reinforcing it through home emphasis.

The School Custodian

Because they are adults and often have close contact with school children, school employees often have a very important influence on youngsters as they learn about fire safety. For this reason, and because they so often play a primary role in school operations closely connected with fire prevention and exit drills, they should act to insure:

1. The best possible example to all pupils of safe handling of stored materials, flammables, electric equipment, machinery, etc.

2. The best possible example of adult reactions to exit-drill regulations, panic control, and calmness during emergencies.

3. An interest in bringing fire safety problems to the attention of responsible authorities in the school building.

4. Co-operation with utilities men, suppliers, fire and police officials — any persons whose contact with the school might have an effect on fire prevention and fire safety education.

5. Knowledge of the operation of all alarms, detection devices, elevators, sprinkler systems, fire doors, and many other physical features of a school building directly or indirectly connected with fire prevention, evacuation, or fire safety education.

6. Close co-operation with the principal and faculty members in calling attention to and making suggestions on problems of fire prevention and fire safety education in the school building.

The School Pupil

Records of fire disasters and near disasters indicate cases of effective leadership by pupils in disaster situations. Children have a vast capacity for the type of leadership and followership which will assure safety in many emergencies caused by fire. They can promote safety for each other by:

1. Observing at all times safety rules about fire taught them by parents, teachers and other adults.

2. Lending aid to fellow students through fire marshal activities to assure safety to the handicapped, the closing of windows, the maintenance of calm, and other actions to insure perfection in evacuation drills.

3. Learning completely and observing carefully all fire regulations pertaining to self and fellow pupils.

4. Assisting teachers to make fire prevention education realistic and effective.

5. Helping the teacher and fellow pupils improve on personal and classroom orderliness, care in using tools and equipment, (particularly electric appliances), and other activities related to fire safety. ■

The ABC's of Automatic Fire Protection Devices

PAUL W. EBERHARDT

Vice-President, Walter Kidde & Co., Inc.
New York, N. Y.

Of the faults which recent investigations of school fire safety conditions have revealed, one of the most serious is the lack of quick, automatic fire detection. Too often the fire is completely beyond control by the time it is discovered and there isn't sufficient time for an orderly exit by the structure's occupants. In unoccupied schools, delayed fire detection means "large loss" fires which destroy many vitally needed classrooms.

Automatic fire detection devices fall into two broad types: "spot" and "continuous line" thermostats. As the name suggests, "spot" comprises individual units. The continuous line type is a system providing detection for large areas, perhaps entire buildings. Both systems can be arranged to pinpoint the area where the fire originates. They can both alert occupants to save lives and call authorities to extinguish the fire.

Smoke Detection

Most fires have one thing in common: smoke. Even deep-seated smoldering fires with very little heat can be detected with this type of analyzing equipment. It will give an alarm probably before any flames are apparent.

For example, assume several storage rooms are protected by smoke detection. Each area has one or more smoke accumulators connected by a separate pipe line for each area to a centrally located smoke detection cabinet. In sequence, air samples

are drawn from each of the protected spaces and passed through the piping to the smoke detection cabinet. There each sample is passed through an analyzer tube comprising a beam of light and photoelectric cells. If any sample contains smoke, it is reflected onto the photoelectric cells which causes an alarm to sound.

Temperature Controls

Another type of fire detector operates on the temperature rate-of-rise principle. Any undue temperature rise in a protected room causes an expansion of air in inconspicuous copper tubing mounted on the ceiling. The two ends of tubing terminate at a detector. This expanded air moving in opposite directions through the tubing enters the detector and acts on two opposing diaphragms. The pressure forces them together and closes an electrical circuit that sounds an alarm. If a number of areas are so protected, a designator indicates which one is reporting trouble.

Incorporated in a detector's design are features which eliminate the possibility of false alarms from normal temperature changes and even from sudden surges of heat. The fact that this equipment works on the temperature-rate-of-rise principle makes it most versatile. It makes no difference whether the circuit tubing is in a cold storage room or a hot furnace room.

"Spot" Fire Detectors

Several "spot" fire detectors are avail-

able. One uses a combination rate-of-temperature rise and a fixed temperature principle. Should the rate of temperature rise be too gradual to actuate the detector, it will be triggered when a present temperature is reached. Each device provides about 2500 sq. ft. of protection, automatically resets itself after an alarm and does not require replacement of parts.

Another detector operates when a fixed temperature is reached. This setting is well above any likely temperature to be experienced in the area, i.e., 135 or 180 degrees. These units each give about 225 sq. ft. of protection.

A third type operates only on the temperature rate-of-rise. Any temperature rise of more than 15 degrees per minute pneumatically closes an electric switch and sounds an alarm. The device can cover 900 sq. ft.

A radioactive unit is used in still another device. In a small ceiling-mounted chamber, it triggers an alarm when a change in ionized air takes place, upon the presence of smoke or heat.

A variation of the fixed temperature thermostat theory is sometimes used in connection with automatic water sprinklers. Rather than having a thermostat, there is a fixed temperature operation of the water sprinkler heads. When they go off, a flow of water starts through the supply pipes. This water flow is detected by a device which causes an alarm to sound.

Photoelectric cells, too, are used to detect fires directly. Devices are ceiling-mounted to permit unobstructed scanning of the entire area that is being protected. If a fire occurs, the "flicker" (infra red light at a specified number of cycles per second) acts on the photoelectric cell and causes a control panel to sound an alarm.

No matter what type of detection system is used, alarms can flash locally, to a central station, and/or to municipal fire headquarters. If desired, devices can be provided with some kind of equipment that upon an alarm will cause lights and other electrical equipment to be turned on or off, doors to close or open, and the like. Also available are battery units for some devices, which in the event of an electricity failure automatically provide power for the uninterrupted operation of the smoke detector. ■

— Underwriters' Laboratories, Inc.



A "UL" engineer tests a dry chemical extinguisher against a gasoline fire.

Some Facts About Fire Extinguishers

DAVE E. SMALLEY

Technical Editor, *Better Building Maintenance*

The recent Chicago school disaster is making us more conscious of fire protection and of the "first aid" in case of a fire—the readily available fire fighting equipment. The least used but most essential pieces of this equipment are probably the fire extinguishers. Hanging on the wall, post, or standing in a convenient corner, they are ever present and yet, because you rarely or never use them, you are scarcely conscious of their presence. Then, in a sudden emergency, they become all important and you are called upon to use a piece of equipment you have almost forgotten existed.

Except in the case of explosions, a fire starts with a little blaze that might be quenched with a teacup full of water. But even fires well under way can often be extinguished or, at least, controlled until the fire department arrives, by the proper use of the proper fire extinguisher.

Classes of Fires

Fires are generally divided into three classifications as follows:

Class A Fires. These are incipient fires on which the quenching and cooling effect of quantities of water are of first importance and consist of fires in ordinary combustible materials such as wood, paper, textiles, rubbish, etc.

Class B Fires are incipient fires on which the blanketing or smothering effect of the extinguishing agent is of first importance, such as fires in small quantities of rapidly burning material, such as gasoline, oils, or greases in vats or other vessels or on floors.

Class C Fires are incipient fires in electrical equipment where the use of a nonconducting extinguishing medium is often of great importance. In such cases a conductive stream of water against live electrical wires or equipment could cause a severe shock to the operator and in the case of high voltage, might even electrocute him. If, however, the current has been shut off, water may be used.

Which Type of Extinguisher to Use

Which type of extinguisher to use for these different kinds of fires is, naturally, of great importance. Next of importance is how the extinguisher should be used.

For **Class A** fires, which are by far the most common, the familiar *Soda-Acid Extinguisher* is used.

Usually made of copper or brass this extinguisher is in the form of a cylinder, of approximately 2½ gallons capacity. It is almost filled with water containing dissolved bicarbonate of soda. In the top of the extinguisher a loose-stoppered bottle of sulphuric acid is fitted. To use the extinguisher it is turned upside down, causing the acid to spill into the soda solution where a great pressure occurs, forcing the water in a small, but hard-hitting stream.

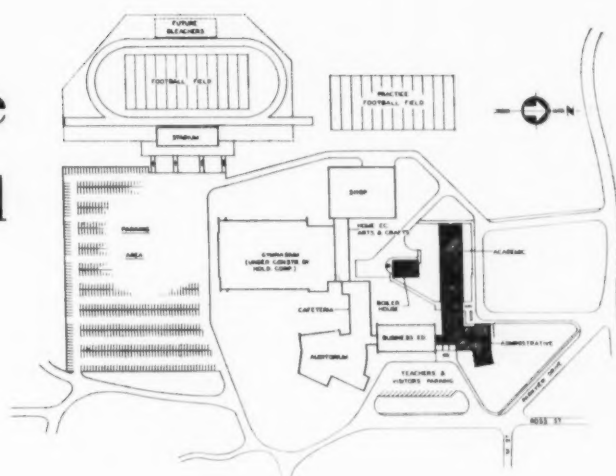
In case of fire the extinguisher is carried to the fire right side up. Do not reverse it until ready to use.

In a small factory fire some time ago an employee seized an extinguisher and, either through ignorance or excitement, promptly reversed it. By the time he had reached the blaze, over half the extinguisher had been exhausted and he had ruined the clothes of a fellow employee. The soda-acid solution will not only destroy fabric but the operator should especially avoid spraying it on himself and others as

(Concluded on page 52)

The Expandable Campus High School

**New Castle's Chrysler High School:
seven "units" being built in stages
without heavy indebtedness—**



Chrysler High School, in the New Castle-Henry Township, Inc., School District, at the present time has the following facilities in use or under construction on its 45-acre campus: 35 classrooms, a large library, a student center (now in use as temporary cafeteria), a health center, administrative

and counseling offices, an athletic field and running track, a boys' gymnasium and fieldhouse, a girls gymnasium, ample parking facilities, and a modern power plant.

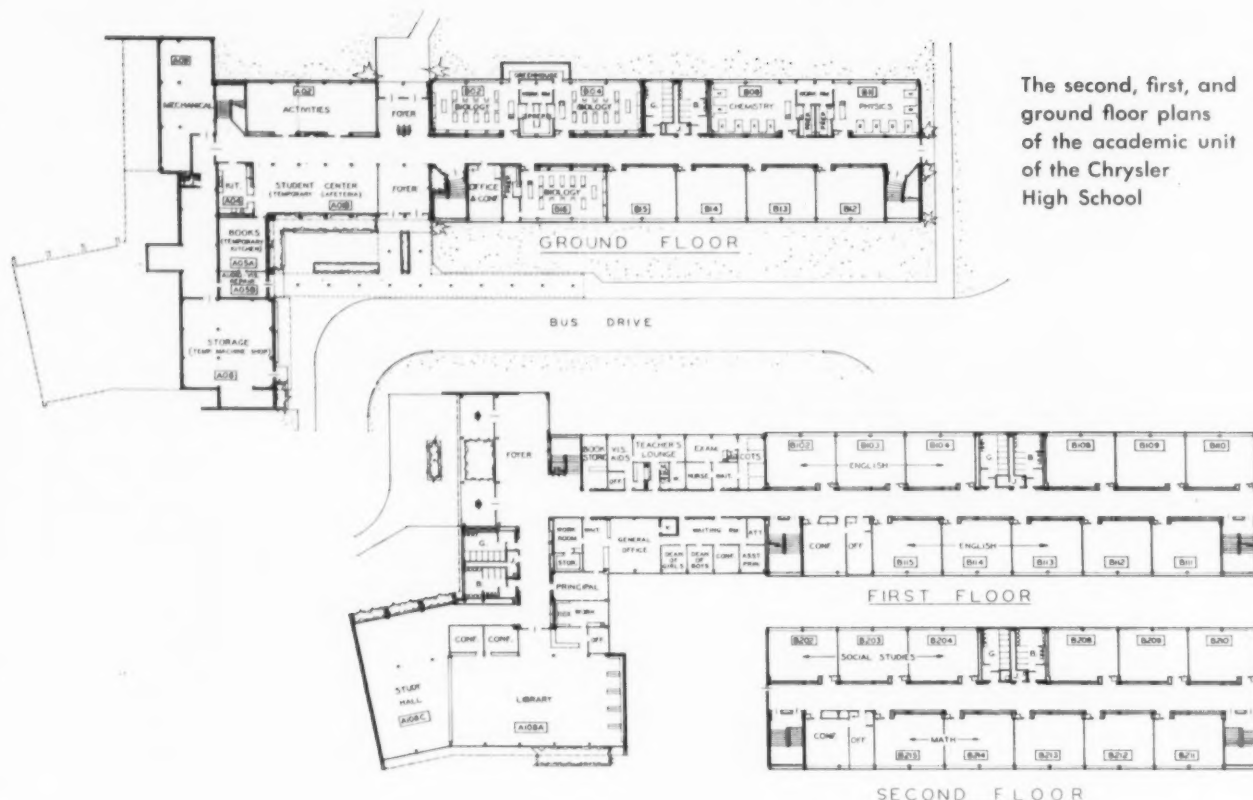
The academic unit has been completed to serve 980 ninth to twelfth grade students, at a cost of about \$1,250,000, of

which \$931,700 already is paid for from the cumulative building fund. General obligation bonds worth \$64,000 were sold and a "veterans fund" loan of \$250,000 was accepted from the state.

Also completed are the physical education unit and the fieldhouse, originally



A front view of the brick, aluminum, and porcelain panel exterior of the academic unit of the Walter P. Chrysler Memorial High School, New Castle-Henry Township, New Castle, Ind. Architect for the school was Boyd E. Phelps, Inc., Michigan City, Ind. Superintendent in New Castle is Dr. Rexford G. Wright.



The second, first, and ground floor plans of the academic unit of the Chrysler High School

scheduled to be built as the last unit. A large group of citizens organized in the spring of 1956 to form a building corporation, however, which was responsible for collecting \$200,000 toward the building. The next unit, scheduled to be built in 1959, is a wing off the southeast corner to house business education classes. Next will come the Bundy Auditorium with music rooms, speech department, and a large cafeteria. Later the home economics section will be added, and the final unit will be a spacious practical arts department.

The girls' gymnasium not only will be used for physical education, but it also will be the center for group meetings, dances, and intramural sports. The fieldhouse, when completed, will have 8000 permanent seats and 1600 removable ones, and it will provide a community meeting place as well as a center for athletic events. Athletic offices, dressing and storage rooms, and concession areas are a part of this building which also will house music classes until the auditorium is built.

The Educational Philosophy

Chrysler High School, like other New Castle-Henry Township schools, operates with a basic philosophy that the individual student with his interests, needs, abilities,

and capacities should be its chief concern. It helps each student to recognize and accept his potentialities; it requires the best of which he is capable; it aids him to develop an avocation, and it helps him to find his place in the world.

The high school, therefore, offers a comprehensive program with a wide variety of academic, vocational, and avocational classes. Trained counselors are available to help individual students with their problems and to assist them in planning their high school programs so as to make the most of their interests, abilities, and future goals.

All students are required to have three years of English, two years of social studies, one year of mathematics, one year of science, and two years of health and physical education. Superior students are encouraged to take a fourth year of English and to add additional science and mathematics to their high school work. Approximately one half of New Castle's graduates have taken advanced mathematics courses such as geometry and trigonometry, and one fourth of them have had advanced science such as physics and chemistry. Classes in language, music, and art also provide cultural, vocational, and avocational stimulus.

Extensive work in home economics, practical arts, and business education also is offered to prepare graduates for their future duties in the homes, businesses, and factories of our community; and many students major in one of these areas.

An activity period just before the close of the school day makes it possible for every student to participate in the school's club program if he desires. Fifteen different groups meet with faculty sponsors twice a month, and students can find organizations which will fill their subject matter, social, and service interests. Outstanding music organizations, school publications, public speaking groups, and athletic teams also offer opportunity for students to develop their abilities and interests.

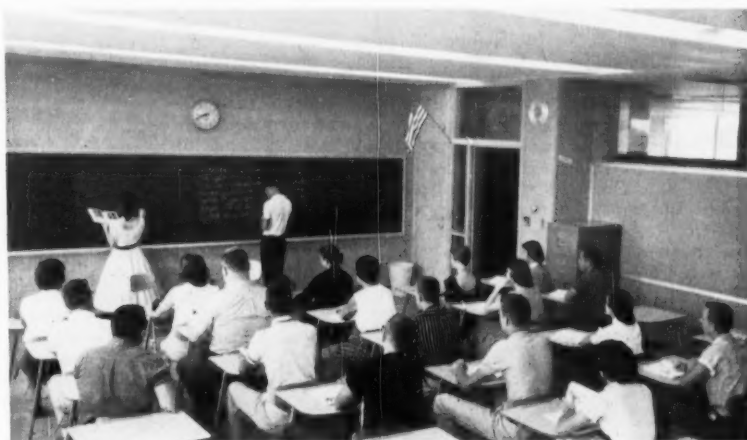
Unique Planning

New Castle is unique in its planning for the future, as very few cities can boast of building programs which have been planned without heavy indebtedness. The modern Chrysler High School campus — the result of community pride and planning — should create an increased feeling of unity within the city and township which will bring about industrial growth and prosperity for many years to come. ■

Chrysler high school's well-lighted, spacious library which seats 72 comfortably and has a book storage capacity of 800 volumes. In addition, the library suite has a work room and storage space and smaller individual study rooms.



Typical classroom of the 35 "general academic areas" in the Chrysler high school. The classrooms have painted block walls, acoustical tile ceilings, asphalt tile floors, recessed fluorescent lighting, hot water heating with unit ventilators. A spare conduit cable was laid in the floor slab connecting all classrooms for future closed-circuit television.



The main entrance of the school's administrative unit opens into a student center alcove which is being used as a cafeteria until the cafeteria unit is constructed.



**A record attendance actively participated in a superb program built
around the theme, "Improving Education — A Free People's Responsibility" . . .
a theme whose variations were defined by noted American lay civic
and social-economic figures with comments by professional educators —**

The closely co-operative character of the lay and professional task of administering American education at the local level was strongly emphasized by the program of the 1959 convention of the National School Boards Association held at San Francisco, Calif., January 25-28.

It was interesting that the major topics included in the general convention theme — Improving Education — a Free People's Responsibility — were defined in the earlier programs by noted lay leaders in American civic and social-economic life and finally spelled out by professional educators. It was interesting too that the lay speakers agreed broadly that there are many things wrong with American education, but disagreed concerning the remedies, except that they insisted that there must be (1) a general upgrading of the schools, particularly on the secondary level; (2) improved teaching; and (3) more adequate support. The professional educators tacitly disagreed with the earlier criticisms of schools, but outlined methods of preparing and finding better teachers, reorganizing curricula and schools, particularly secondary schools, for better educational service to children of differing abilities, and finally of providing more state and federal funds. President Carl Munk of Oakland and Executive Secretary W. A. Shannon managed the mechanics of the convention smoothly and with skill. The commercial and state association exhibits were well placed and Dr. Harold Webb deserves credit for the fine attention which the exhibitors received. San Francisco provided everything in the way of hospitality which any convention could expect from school hosts and hotels. As in previous conventions, there was a fine spirit of relaxation and remarkably active participation in the program by the nearly 4000 members, delegates, and guests in attendance.

Adlai E. Stevenson Speech

In the keynote speech, "Improving Education — a Free People's Responsibility," Adlai E. Stevenson drew a pessimistic picture of education and challenged educators to upgrade all educational effort. "Admittedly," he said, "American education has had serious defects. I suppose it is because we as a people have never given the education of young a top priority in our sense of values. Nor is education at the top of the list of alternative uses to which our tax dollar can be put. In the uses to which we

have put our individual time, thought, and energy, the problems of education have never had priority. The reason why our scholars and educators don't enjoy the social and economic status which most countries — especially the Communist — have accorded them is that education has never commanded the status which it merits."

Mr. Stevenson deplored the fact that the critical uplift which education has received from Sputnik is wearing down. He said: "I conclude that it is we the people, we the parents, we the community, that are most to blame for the failures of our education. If in their homes and their environment outside the school the child is indulged, how can the school be expected to turn out a better product? The courses that are taught will not be independent of the feelings, attitudes, and demands of the surrounding community. If the community wants driver education or bachelor cooking instead of Latin and mathematics, it will get it. And if colleges give scholarships to boys with co-ordinated bodies rather than to those with co-ordinated minds, what will a student value?"

In his concluding statement Mr. Stevenson said that "no society in history has faced such a challenge for leaders more desperately to draw on the deepest sources of courage and responsibility. Ours is the first human community in which resources are so abundant that almost no policies lie beyond our capacities for purely physical reasons. What we decide to do, we can do. The inhibitions of poverty, lack of resources, lack of power — do not hold us back. We can accomplish what we aim at. For the first time in the world, choice, not means, ends, not instruments, are decisive. I hope we choose to upgrade education, and quickly."

Legal Problems

School and school board legal problems, provided a remarkable informative session on Monday evening, sponsored by the California State School Board Association. In spite of the fact that speakers and subject matter involved California situations only, the papers attracted country-wide participation in the discussions. Irving G. Breyer, legal adviser of the San Francisco Unified School District, brought out very clearly the dilemma of tenure laws. While teacher tenure acts are intended to protect teachers from arbitrary and capricious dismissal,

there are at times situations when the law favors the incumbent teacher to the injury of students and community welfare. Honest differences of opinion will occur and the school board must meet the responsibility of caring for the ultimate welfare of the children without doing injustice to the teacher.

In a discussion of problems relating to school finance and school district reorganization, Dr. Edgar L. Morphet, University of California, recommended that problems of finance and organization should be approached to aid districts enrolling at least 1500 pupils and providing a program justifying twelve grades of instruction. Wealthy areas should not be permitted to combine in order to keep down taxes and to leave out poorer areas where harmfully high levies may be necessary. Special state subsidies which tend to perpetuate inadequate districts should be eliminated. To safeguard the interests of children, the people who insist on separate or inadequate districts of any sort should be required to provide a reasonably adequate program for their children.

The unhappy situation of school boards who are constantly being thrown into the middle of serious disputes raised by civil liberties extremists, was discussed by Ernest Besig, of the American Civil Liberties Union of North California. The most rewarding section of the program was the discussion of the trend of school board liability for personal injuries of pupils. California's Attorney General, Richard Perry, made clear that the growing liberality of legislation and legal interpretation, and the increased practice of providing insurance coverage for children and teachers, is bringing a greater amount of justice from the human standpoint. The litigation is increasing as parents have become aware that in California, New York, and certain other states, school boards can no longer claim immunity under the ancient English common law.

Federal Aid Act Reviewed

On Tuesday morning, U. S. Commissioner of Education Lawrence Derthick limited himself in his address to spelling out the ten articles of the federal-defense-education act, which he declared can become effective only if understood and used rightly by the school boards at the grass roots. Some \$40 million are to be available at once for aids

The NSBA in San Francisco

under the law; about \$6 million will be devoted to student loans.

Industry and Labor View Schools

The growing and grave problems confronting America as a world power make it necessary to upgrade all American education. In an address Monday afternoon, General John E. Hull, president of the Manufacturing Chemists' Association, Washington, D. C., stated that industry has a peculiar responsibility in this matter and has the advantage of understanding the major evil from which our educational system is suffering—obsolescence. Modern ideas of obsolescence growing out of studies of industrial processes recognize the growing cost of obsolescence. Unless educators and others concerned with education continue to support continuing research, he said, their special talents cannot be made to work. Businessmen must learn to apply this normal part of their professional behavior to educational problems as they do in their own business. World politics is imposing new and growing problems on America. Industry is willing to do its share to help American education. It has demonstrated this willingness by the real concern of its leaders for maximum standards of effectiveness. The National School Boards should help welcome the opportunity of using business for the betterment of education. "Let us not forget that American system of education was conceived and founded as a means of accomplishing this American goal—the dignity, freedom, and good life of the individual. This is the fundamental, common objective of American education, and overrides all others."

James B. Carey, president of the International Union of Electrical, Radio, and Machine Workers' Unions, sharply criticized the Eisenhower administration for its failure to recognize educational needs. He called attention to the fact that labor has been working for the public schools since 1829. There is need, he said, for integrating the schools, for catching up on the heavy shortage of classrooms and teachers. He demanded that teachers' pay be doubled, and that special attention be given to men teachers with families. Labor wants to share in the work of bettering local schools and in the policy making of school boards by membership in all boards of education. In closing, he listed 18 specific areas of school betterment which labor supports and which require immediate attention if

education is to win the race between the future success of the United States and disaster.

After the general session, the Association broke up into eight groups, each under the leadership of two professional educators, to discuss the contrasting views of General Hull and Mr. Carey. The group meetings brought out sharply the point of view of board members and of professional educators as applied to the solution of widely recognized problems, ranging from the curriculum and federal aid to the appointment of teachers, and the quality of teaching service.

The Banquet

The annual banquet which overflowed the great Garden Room of the Sheraton-Palace Hotel was addressed by a local industrialist, Henry J. Kaiser, Jr., who has given notable aid to the Oakland schools in a campaign to raise the tax ceiling for higher salaries, and improve basic school services. Mr. Kaiser expressed concern about the sincerity of American criticisms of the present efficiency of the schools and the desire for improved education. "We are very far from giving education the kind of top priority among our institutions which it deserves." Our educational system, he argued, should continue to be a matter of local responsibility and control. "Unless we find a means of solving educational problems and needs, at the local and state levels, then the solution of such problems must be taken up by the Federal Government."

Professionals Address Wednesday Meetings

When a school board places a teacher it has taken the final step in facilitating the educational process. According to William G. Carr, secretary of the National Education Association, who opened the Wednesday morning program, unless school board policies are sound in the employment of competent teachers, good schools cannot be had. "Contact with a great teacher can be a crucial factor in developing lives of children. Only the teacher can determine whether the classroom is vibrant with life and inspired by inquiry, or a drab experience to be escaped as early as possible."

Four things should be done, according to Dr. Carr, to insure an increasing supply of qualified teachers: (1) School boards

should insist that the teacher training institutions be of high scholastic and professional quality; (2) School boards should direct that accepted applicants be fully prepared; (3) School boards can work for reasonable standards of state certification; (4) School boards should lead their communities to provide professional salaries, congenial work conditions, work loads consistent with good teaching, and other provisions which will insure quality service.

Oliver J. Caldwell, Assistant U. S. Commissioner of Education for International Education, outlined in a detailed paper the Communist competition in education which is now challenging the American people. A principal source of Communist strength is the effective development, through education, of human resources. The American people, he concluded, must be more competent in strategic skills, and above all, wiser than the people of Communism. Learning is the root of strength, and wisdom is the foundation of power. The prize is world power.

In the closing address of the convention, James B. Conant summarized his report of his eighteen months' survey of American high schools. Warning his hearers that school boards as responsible policy-making school authorities must not become involved in direct administration, he said it is, however, a main function that they ask searching questions of the responsible administrative officers. No radical change is needed in American high schools; the diversity among our public high schools is so great as to preclude numerous valid generalizations.

Sixteen specific questions were raised by Dr. Conant which deserve to be asked by local school boards. The number of high schools which have graduating classes of less than 100 members is to be deplored because small high schools can be satisfactory only at exorbitant cost. Only a small proportion of the students in such schools can study twelfth grade mathematics, physics, and four years of a foreign language. There is no such thing as a typical high school that would be ideal for all communities. The small industrial city and the rural area require a high school that would be wholly unsatisfactory in the large city or in a high-class suburb.

In addition to recommending an academic inventory as a device for judging a school and of improving the opportunity

(Concluded on page 64)

Education in the President's Budget

ELAINE EXTON

The fragilely "balanced" \$77 billion budget—with receipts estimated at \$77.1 billion and expenditures at \$77.0 billion—which President Eisenhower has sent to the Democratic-controlled 86th Congress for the 1960 fiscal year contains few, if any, surprises in its education recommendations for those who have been following Administration policies.

As might be expected increases are requested for the Administration-initiated defense education program begun last fall. The new budget calls for a supplemental appropriation for 1959 of \$75.3 million to augment the \$40 million "starter" appropriation already obtained "and provides \$150 million in new obligational authority for fiscal 1960 pending further experience with the program."

The President repeats his plea for two restrictive legislative proposals "similar" to those which failed to pass in the last Congress, namely, (1) legislation to discontinue federal financial support for the older vocational education grants including repeal of the 42-year-old Smith-Hughes Act with its permanent authorization of an annual \$7,138,331 appropriation and (2) legislation to revise the program of aid to school construction and operation in school districts affected by federal activities "in order to define more clearly the proper roles of the Federal Government and the local school districts."

Unmentioned Possibilities

What was occasioning most comment were two programs which, though not mentioned in the budget, Administration

spokesmen hinted might nonetheless be undertaken in fiscal 1960 without affecting the President's announced budgetary plan.

Most interest centered on the possibility the Administration might propose that the Federal Government share in the debt service on school construction bonds in communities which although exerting an adequate tax effort are demonstrably unable to meet their school building needs.

Under this proposal no federal outlays would be required before mid-1960 at the earliest since the debt service on the bonds would not start until from six months to a year after the bonds were sold.

It is known that such an idea has been discussed in the executive branch and with Republican leaders in Congress. According to information that had leaked to the press from these huddles at the time this article was written in early February this new approach to diminishing the classroom shortage would permit the U. S. Government to advance money to a local school district to take care of part of their debt service (including principal and interest) in certain specified circumstances.

The local school district would be expected to do the basic financing. The state would set up criteria of effort to meet the need and would be expected to match the federal payment to service the school construction debt of a school district which had met the criteria of effort in that state.

Also causing raised eyebrows was the omission from the 1014-page 1960 budget of an appropriation request for funds—not in excess of \$50,000 for the fiscal year ending June 30, 1959, and for each fiscal

year thereafter—as authorized in Public Law 875 of the 85th Congress which empowers the U. S. Commissioner of Education "to encourage, foster, and assist in the establishment in localities throughout the nation of clubs which are composed of boys and girls who have an especial interest in science—with a view to the ultimate chartering by the Congress of a corporation similar to the Future Farmers of America."

Upon checking with the office of Congressman Jim Wright (D., Fort Worth, Tex.), who sponsored the original bill (H.R. 13191) for this activity, this reporter found that although this undertaking is not specifically mentioned in the new Eisenhower budget, Congressman Wright has received assurances from U. S. Office of Education officials that they are interested in the proposal, have begun a survey aimed at its implementation, and will be able to draw on contingency funds to get the work started.

Office of Education Staff

For the fourth consecutive year an increase is being sought for salaries and expenses of the U. S. Office of Education. The 1960 estimate of \$12.8 million is \$2.9 million (29.9 percent) above the current appropriation of \$9,853,500, including a proposed supplemental of \$550,000. The available funds for this purpose have tripled since fiscal 1954 when a \$3 million appropriation for salaries and expenses maintained 433 positions.

The \$12.8 million proposed for the new fiscal year will provide for 1022 positions, or almost twice as large a staff as in fiscal 1958 when the total number of positions was 589. During fiscal 1959, 150 new positions were established for the administration of the National Defense Education Act. An additional 128 positions are being requested for related defense education activities in a supplemental appropriation. The 1022 figure also encompasses an increase of 53 new positions above the 1959 level for the regular Office of Education staff.

Also included in the \$12.8 million sum is an allocation of \$3.2 million for co-operative research in 1960, a \$500,000 increase above the 1959 fiscal year for research contracts with co-operating institutions.

Other Programs

Appropriations of the same level as 1959 are recommended for grants for the support of land-grant colleges (\$5,051,500, including an annual appropriation of \$2,501,500 and a permanent appropriation of \$2,550,000).

A new grants program makes its first appearance in the 1960 budget as a result of legislation passed at the last session of Congress to expand teaching in education of the mentally retarded (Public Law 85-926).

\$1 million is requested for this activity. Of these funds \$313,100 would be utilized for grants to assist state educational agencies in establishing fellowships or traineeships for personnel engaged, or preparing to engage, in teaching or supervising teachers of the mentally retarded. An average of two traineeships per state is estimated for 1960. The remaining \$686,400 would be assigned for traineeships at institutions of

higher education (5 at each of about 20 universities) and for about 198 "stimulation grants" to institutions of higher learning.

Grants for Library Services

The \$5,150,000 figure presented in the 1960 budget for grants for library services was arrived at by estimating that \$850,000 of the \$6 million appropriation for fiscal 1959 would not be requested by about 15 states which do not have sufficient matching funds available for full participation.

In the opinion of the American Library Association, however, "this reasoning does not stand up under an examination of facts since all funds approved under the Library Services Act are allocated to the states even though a state does not use its full allotment."

They explain that under the terms of the Act these allotments remain available to specific states for one succeeding fiscal year unless the state certifies that it will not be using its funds (as did Indiana and Wyoming in Fiscal 1958). To date no state has made such a certification for fiscal 1959. More than 30 states already have sufficient funds available to match for allotments under the Act's full \$7,500,000 authorization.

Over 800 counties across the nation are already receiving new or improved library services under this program which has only been in operation since 1957. More than 30 of these had no library service at all prior to the enactment of this law. In all, 50 states and territories are presently participating to some degree in this activity.

Vocational Funds Reduced

The new federal budget is seeking \$46,740,412 for aid to the states for vocational education for the fiscal year 1960. This includes \$7 million for area vocational programs authorized in Title VIII of the National Defense Education Act, \$7,138,331 for the Smith-Hughes permanent appropriation, full amount authorized under the George-Barden Act for Agriculture, Distributive Occupations, Home Economics, and Trades and Industry besides \$2,900,000 for Practical Nurse Training (\$1,100,000 less than the amount appropriated last year) and \$180,000 for Training in the Fishery Industry (\$48,000 less than was appropriated for fiscal 1959).

The reduction in funds for practical nurse training and for the fishery trades, Secretary of Health, Education, and Welfare Flemming told a news conference, "is occasioned by the fact that it is estimated that in 1959, states will not use the full amount appropriated for vocational training in commercial fisheries and practical nursing."

Some state officials on the other hand maintain that the inability of states to fully utilize this money is due to restrictions in the regulations established by lawyers of the Department of Health, Education, and Welfare. The situation has been recognized by the Senate Appropriations Committee which, incorporated in its report (No. 1719, 85th Congress, 2nd Session) on the Department's appropriations bill last year (H.R. 11645) the following statement:

"When Public Law 911 was enacted by the Congress, it was not intended that regulations be established to deprive those states which had made substantial progress in developing practical programs of funds appropriated for practical nurse training. States should not be penalized for making progress with a program vital to the health of the people of the Nation. The committee therefore urges the Department to adjust policies and regulations so that each state will be able to use, and use effectively, its allotted funds for practical nurse training as was contemplated by the Congress in the enactment of the enabling legislation."

Proposed Curtailments

President Eisenhower has again proposed the elimination of funds for the Smith-Hughes and George-Barden vocational education programs. His new Budget Message to Congress states:

"While continuing to support programs necessary to stimulate greater state and local effort in areas of critical national concern, this administration has consistently endeavored to strengthen our system of government by encouraging state and local governments to assume responsibility for many public needs which they can provide without relying on federal aid at all, or by financing a larger share from their own resources.

"Therefore, toward this objective, legislation is again recommended to: (a) Discontinue federal grants for vocational education and for waste treatment works construction and adjust federal revenue laws as recommended by the Joint Federal-State Action Committee so that states can assume full responsibility for these programs starting in the fiscal year 1961."

The Joint Federal-State Action Committee of 17 members—seven of whom are appointed by the President and 10 of whom are Governors named by the Chairman of the Governor's Conference—at the request of the Governor's Conference has modified its original proposal for a 40 per cent credit against the federal tax on local telephone service "to insure a greater measure of equivalence state by state in the exchange of grants for tax sources." As described in the Committee's Second Progress Report dated December 1958 (30 cents a copy from the Superintendent of Documents, Government Printing Office, Washington 25, D. C.) their new plan provides for:

"(1) A credit for taxes paid to the states on local telephone service equal to 30 per cent of the federal tax, or three percentage points of the present 10 per cent federal tax; and (2) the revenue equivalent of one per cent of the federal tax to be appropriated and distributed as Treasury grants to certain states as an 'equalizing' factor.

"Thus the combined credit and Treasury distribution equals 40 per cent of the telephone tax, as originally agreed. The one per cent distribution would be sufficient to supplement the credit in 37 states and the District of Columbia so as to bring each a total of at least 140 per cent of present grants for vocational education and waste treatment projects. The other 11 states would receive in excess of 140 per cent of present grants from the three per cent

credit alone and, therefore, would not be eligible for the supplementary Treasury funds.

"The plan incorporates these companion features: (1) The present federal grants for vocational education and waste treatment plants would be terminated and financial responsibility for these programs would be assumed by the states when the new system goes into effect; (2) the telephone tax proposal would have a duration of five years at the end of which both the three per cent credit and the one per cent Treasury distribution would cease; and (3) with this termination the rate of the federal tax on local telephone service would drop from 10 to six per cent."

Federally Affected Areas

President Eisenhower's Budget for the fiscal year ending June 30, 1960, calls for an appropriation of \$180,800,000 for the construction and operation of schools in local districts overburdened by federal activities, the same amount that Congress provided for this work in the previous fiscal year.

While the over-all total remains unchanged there has been a redistribution of funds between these two programs with the result that \$142.3 million is being requested for the operation of schools in federally affected areas for fiscal 1960 (\$12.3 million more than the \$130 million obtained for this purpose in 1959) and \$38.5 million for assistance for school construction (or \$12.3 million less than the \$50.8 million received in the previous fiscal year).

If the funds requested for school operation and maintenance in federally affected areas in 1960, under the current law, are granted payments will be made to about 4000 school districts enrolling approximately 1,468,000 federally connected pupils in all states, Guam, Hawaii, and Puerto Rico as compared with some 3800 districts and about 1,385,000 pupils in 1959. The 1960 estimate will provide school districts with approximately the same percentage ratio of entitlement (85 per cent) as was available in 1959.

The funds requested for construction in federally-impacted areas for 1960 will furnish approximately 1250 classrooms for about 37,500 children. As in the current year, approval of construction projects of lower priority in terms of urgency of need will have to be deferred by the Office of Education unless a supplemental appropriation is made.

Although recognizing that "the Federal Government's responsibility is clear for those children who parents both work and live on federal property, and do not, therefore, pay local property taxes," the President in his Budget Message holds that "it is only proper for the communities to bear the cost of educating children of those federal personnel who, like all other residents, pay local taxes directly or indirectly for the support of public schools." He said that "in accordance with these principles legislation . . . similar to that submitted to the Congress last year . . . will be recommended to place these aid programs on a more sound and equitable basis." ■

Surveying the School Scene

Helping the Emotionally Ill

How the schools in Valley Stream, N. Y., identify their emotionally disturbed and how they help them by using special help

One of the difficult problems facing the classroom teacher is that of dealing with children who are emotionally disturbed.

The Union Free School Dist. No. 3, Valley Stream, N. Y., has attempted to meet this problem by placing children who are failing academically, are socially maladjusted, or are at the end of the personality scale, in special classes. It is estimated that there are from 10 to 20 pupils constantly in the Valley Stream school population who come under this classification. It is felt that these children should be given special help because they need it, and because in addition they are a disturbing influence in the education of other children with whom they come into classroom contact. In each case, they are a constant monopoly on the teacher's instructional time, her efficiency; they present a potential hazard to their classmates. They are an additional problem of becoming maladjusted in later life.

For the school year 1958-59, the Valley Stream schools have assigned a classroom teacher who has shown unusual sensitivity toward these children and who has certification as an elementary teacher and guidance counselor. He has been relieved of regular classroom assignments and is giving his full time to the two groups which have been

organized to meet in two of the three elementary schools of the district.

The special help which this teacher is giving is conducted in the following manner:

- a) Group I meets daily from 9 to 9:50 a.m., in a physical relief situation, with semiorganized games and equipment. It is believed that this session will relieve accumulated tensions.
- b) From 10 to 10:50 Group II in another building participates in a similar program.
- c) From 11 to 12 the teacher is engaged in personal counseling and individual guidance with parents and members of either Group I or Group II.
- d) Group I meets daily from 1 to 1:50 in a quiet activity program consisting of art, music, and some academic study—particularly number work and reading.
- e) Group II meets in the quiet activity work from 2 to 2:50 p.m.
- f) From 3 to 4 p.m., the home-room teachers are expected to confer with the children and their parents.

The children are identified in the individual classrooms in the following manner:

1. Teacher's referral to the building principal and to the school psychologist on the basis of the teacher's observation of unusual behavior.
2. On the basis of psychological tests and observation.
3. On recommendation of the building principal.
4. On recommendation of the reading or speech consultants.

The first children to be admitted to these groups are from 6 to 9 years of age; the counseling is intended to remove any possible stigma and to prevent failure and frustration.

William J. Van Ness, elementary consultant of the schools, who is in general charge of the program states that there are many limitations within the public school's ability to deal with atypical children, especially with those emotionally disturbed. It is expected that the program will be supplemented, if necessary, with outside psychological service.

Major Work Classes

In Hyde Park, N. Y., "major work classes" in the sixth grade will broaden the gifted child program

The board of trustees of School Dist. No. 5, Hyde Park, N. Y., has recently approved the establishment of "major work classes" at the sixth-grade level, to begin in September, 1958. The name "major work classes" replaces the former "gifted child classes."

The program provides that at the sixth grade level, one sixth grade will be made up of students capable of doing much more educational work. Such students are selected on the basis of teacher evaluation, I.Q. tests, achievement tests, daily work, child potential, and social adjustment.

Major work classes are intended to make it possible for teachers of the remaining sixth grades to do a better teaching job. The remaining sixth grades will be constantly supervised to make sure that those students not enrolled in the "major work classes" are receiving a more comprehensive type of program than is allowed by the present setup.

The advantage of the "major work class" program is that many more pupils will benefit than under a restricted "gifted child class" program. A further advantage is that no additional classroom space is required and no expense is involved.

The work is being carried out by Thomas Rooney, principal of Hillside School, working under the direction of John Day, supervising principal.

Student Car Rules

Two novel approaches to a growing headache, student cars — especially the parking lot program in Dallas, Tex.

In Barnum, Minn., the board of education has adopted this seven-point program governing the driving of cars to school by students:

1. Cars may be driven to school during the school day only in cases of need which are acceptable to the board and the administration.
2. Students who drive cars to school must present a parent's permit in writing to the school office.
3. Student drivers must show their driver's license or driver's permit.
4. All cars must be parked on the school grounds at the designated place.
5. Cars may not be driven during the school day, except where need indicates it.
6. No passenger except a member of the immediate family may be allowed during the school day.
7. Student's guilt of disobeying the regulations will be severely dealt with.

● In Dallas, Tex., parking lots for students where school sites permit, complete with fees (15 cents a day) and attendants are being set up. The move pleased parents (whose children received \$1 parking fines), residents near schools (whose driveways were occasionally blocked), and the police (whose on-street traffic congestion woes were considerable).

Incentive Pay Plans

Interested in some newer ideas on merit rating? Two districts in the East have adopted differentials in their salary schedules to reward greater effort among their teachers

Two rather novel approaches to incentive pay plans have been reported recently.

● In the first, adopted at Carle Place, L. I., N. Y., the board adopted a plan to enable certain teachers to receive a salary of \$10,600 for ten months' work in the classroom. The schedule, arranged in 16 steps, enables a teacher to achieve \$9,100 after two years' preparation beyond the bachelor degree.

In recognizing qualitative differences among teachers, the board has made it possible for a teacher after having been granted tenure, to apply for incentive pay. This plan enables a young teacher to receive an additional \$500 per year three years after he or she has started the teaching career, provided that he or she has measured up to the established criteria.

Any teacher may apply for incentive pay or his supervisor, principal, or superintendent may apply for him. The selection and evaluation of the teacher is in the hands of the supervisory and administrative staff. No teacher may participate in reviewing another teacher's application.

● In New Berlin, N. H., the school board has adopted a new salary schedule which is arranged in five different groups to determine persons who are to be advanced beyond the automatic level of the schedule.

Schedule 1 for teachers not fully certificated provides a minimum of \$4,000 and a maximum of \$5,600, to be reached in ten steps; Schedule 2 for teachers holding the bachelor

degree provides minimums of \$4,000 and \$4,100 and maximums of \$5,600 and \$5,700; and a further section providing a minimum of \$4,200 and a maximum of \$5,800; Schedule 3 for teachers holding the master degree provides minimums of \$4,300, \$4,400, and \$4,500 and maximums of \$5,900, \$6,000, and \$6,100; Schedule 4 for teachers earning 30 hours beyond the master provides minimums of \$4,600 and \$4,700 and maximums of \$6,200 and \$6,300; Schedule 5 for teachers earning a doctorate provides a minimum of \$4,900 and a maximum of \$6,500.

Further promotional increments, arranged in four steps, provide new salary increments ranging from \$5,600 and \$7,100.

A Study of the Elementary Principal

An NEA survey of what the average male and female principal is like: age, experience, salary, etc.

A recent NEA study of the elementary principal showed that 59 per cent were men. The "average" man in charge of grade schools was: just past 43, had eight years experience as a principal, has had past experience as a grade school teacher, holds a master's degree, and has two or more dependents.

In metropolitan areas, however, the study indicated that the elementary principal is

more likely to be a woman; 52 years old, with nine years' experience as a principal and more than 17 year's experience in education, and also holds a master's degree.

The median salary of the principals reported on in the survey was \$6,237. Since the salary increases of elementary school principals for the past two decades have been proportionately less than the rises for classroom teachers, tying salaries of both groups together proportionately or by percentage was recommended.

The study stated that the chief obstacle to the elementary school principal assuming effective leadership in his school and community was lack of clerical help.

Absence Rules

At each session's end, the unused portion of a teacher's illness leave will be paid for in Greenville, Miss. . .

In Greenville, Miss., the school board has approved interesting new rules governing absence of teachers and payment for absence. Under the rules, a teacher may be absent 1½ days per month, which will be allowed to accumulate to ten days for any one session. A staff member may be absent ⅓ of one day per month because of serious illness in the family, which may be allowed to accumulate to five days for any one session. At the end of each school session, staff mem-

trends in administering the schools

bers will receive a check at the rate of \$8 per day, for any unused portion of the total amount of illness leave. Accumulations are allowed to a maximum of 40 days.

DAY OF RECOGNITION FOR ROSEVILLE BOARD

Citizens of Roseville, Mich., recently held a "Board of Education Recognition Day." The occasion, planned and spearheaded by a committee of the local P.T.A., along with other citizens and community organizations, featured displays and exhibits which interpreted the system's program to the public. In recognizing the effort of their board in Roseville, the chairmen of the lay groups for "Recognition Day" said, "Many of us are beginning to realize what a great effort has been necessary to furnish the sites, buildings, and staffing for our schools during these growth and development years. We want to say 'thank you' to our capable board in this way."



The Roseville, Mich., board of education (from left to right): Russell Kaiser, Dr. Stanley S. Conrad, president; Clarence E. Pryor, secretary; Donald O. Case; John K. Carls; Usher T. Boughton; Edwin C. Harris, treasurer. Carl Brablec is superintendent in Roseville.

N. Y. Budgets Approved

The New York State Education Department has reported that eight out of 547 school budgets for 1958-59 have been rejected in 1958 school elections. The Department reported that 488 budgets were approved without change, and 51 were amended and approved. Of those amended, 43 were increased and six decreased.

While the rejection rate of 1.8 per cent so far reported is not indicative of a tax revolt, the results were seen as a warning that the public is cost-conscious and as showing the need for careful financial planning and for keeping the public well informed on educational needs and plans.

Importance of School Buses

Bus Facts, the official annual report of the National Association of Motor Bus Operators, calls attention to the importance of buses as a means of transportation.

Local-transit buses totaled 51,000 in number in 1957 and school buses approximately 150,000. Travel on local-transit and school buses is not commonly measured in terms of passenger miles, but the magnitude of both forms of transportation may be seen from passenger-count totals. About 5½ billion rides are provided annually on the local-bus systems of our cities and metropolitan areas, and more than 10 million children are transported to and from classes daily by school buses.

School Built in 50 Days

One of the fastest school building projects was completed recently when the Marin County elementary school in Corte Madera, Calif., was opened to 140 pupils 50 days after the school board voted to build.

Constructed of prefabricated steel sections, the school has seven classrooms and a utility room that includes a kitchen.

the AMERICAN SCHOOL BOARD JOURNAL

An Independent Periodical of School Administration

William C. Bruce, Editor

Guest Editorial —

SMALL CLASSES AND EDUCATIONAL EFFICIENCY

WITHOUT reflection, one would readily accept the notion that children will inevitably achieve more in smaller than in larger classes. Such opinion we would call common sense. The judgment at the Third Annual Conference of the Supervisors of Elementary Education (1957), that small classes are better for any educational purpose making research data superfluous, was readily accepted in spite of the fact that 200 research projects had been conducted and were available on the subject since the beginning of the century.

"Common Sense" of Smaller Classes

It certainly seems to be common sense to believe that smaller classes are better, because the teacher can give more attention to each of the individual children; the children themselves will be better able to participate in the school activities and make known their difficulties, and a more intimate personal relation can be established between teacher and individual pupil. And, moreover, problems of school discipline should be greatly reduced or completely eliminated. And yet what seems to be so obvious may be and has been seriously questioned.

The first question is, What is a small class? Larger or smaller than what? Somehow or other it has been determined that the right size of a class is 25. The Department of Elementary School Principals of the NEA believes the maximum class size should be 25; the American Federation of Teachers, AFL-CIO, says it should never exceed 25; and the National Citizens Commission reports that "leading educators and most parents" say that the number most desirable is 25 to 30 pupils per teacher. It is nowhere revealed how this definite number was determined unless it is a rationalization of present practice, or its tendency. It apparently is a goal these people have set.

But if we look at the material cited in Freeman's *School Needs in the Decade Ahead*, we find in the current situation and its development some confusion as to the facts. Mr. Carr of the NEA reported in 1955 that the average number of pupils per teacher in public schools declined from a peak of 37 in 1900, to 29 in 1940, and to 28 in 1950. However, he reports in the *NEA Journal* of May, 1957, that we have now so many classes with 40 and 50 pupils that some people have lost sight of the upper limit of 30 which public opinion generally approved many years ago. NEA reports showed that in New York City average class size in 1930-31 was 36.9, and in successive five-year periods became 36.4, 34.3, and 33.8.

The Case Against Large or Overcrowded Classes

In connection with hearings on School Construction before the House Labor and Education Committee (February 6, 1957) the U. S. Commissioner of Education made a vigorous

statement on the effect of large classes and overcrowded classrooms. He said:

1. Both children and teachers become tense and nervous when classes are overcrowded and physical condition uncomfortable. Since there is more confusion, children become more easily fatigued and irritable and as a result teachers become physically and emotionally fatigued. . . .

2. Behavior and discipline problems are increased. . . . When the teacher is concerned primarily with discipline, children develop bad work habits, become inattentive, and lose interest in their work.

3. Teachers are likely to aim at minimum standards of achievements. Slow learning students cannot grasp meaning. . . . Bright pupils are bored. . . .

4. Overcrowded conditions of classrooms and inadequate buildings have a direct effect upon the shortage of teachers and the recruitment of teacher personnel.

5. An additional factor . . . is juvenile delinquency.

The U. S. Commissioner cites no references to the studies on which his statements were based but his own Office four months later reported: "At the present time research does not reveal how the size of class enrollment affects the emotional, social and physical development of children" (quoted in Freeman, p. 84). For the Commissioner there is perhaps a loophole in a distinction between large classes and "overcrowded" classrooms.

Members of the Comparative Education Society reporting on conditions in seven European countries.

There is little evidence of personality damage expressing itself through nervousness and tension on the part of students in spite of the rigorous scholastic standards and the finality of the decision as to one's future educational possibilities in the sixth or seventh grade in school . . . the graduate of the secondary school is about two years advanced beyond his counterpart in the United States. (p. 85)

Nor does there seem to be any direct relation in the slight evidence available that juvenile delinquency is due to large classes.

The overwhelming evidence in support of small classes is given by teachers and administrators. This is natural and human. "Fewer pupils mean less work, fewer lessons to correct—particularly in schools where homework still is the custom."

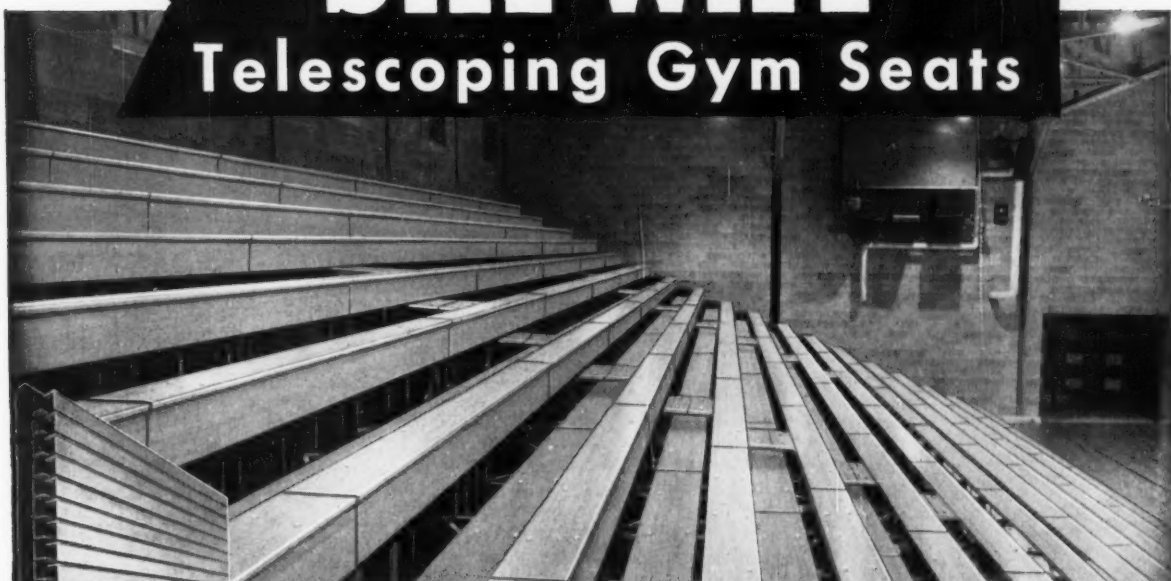
The Research Projects and Larger Classes

But to return to the comment of the supervisors that common sense was "so much on the side of small classes that research data would seem superfluous." There were available at the time, when what seemed so obvious a remark was made, 200 projects on the educational efficiency of the small class. What is the result of this extensive research? The *Encyclopedia of Educational Research*, reviewing the major studies, found that better than two to one of the projects rated pupil achievement higher in large rather than in small classes. And the *Encyclopedia's* own summary article of the situation concludes: "The general trend of evidence places the burden of proof squarely upon the proponents of small classes. . . . On the whole the statistical findings definitely favor large classes at every level of instruction, except the Kindergarten."

A Connecticut "Citizens for the Public Schools" study with the aid of the State Department of Education reported that "the correlation between achievement and the pupil teaching staff ratio is practically zero." Two recent studies in class size in nonpublic schools with a wide range of difference shows "no relationship between class size and pupil achievement." As far back as 1932 Manley Irwin summarized the situation then as it might well be summarized today: "Apparently the nearest approach to the truth in a single statement is to say that the results of these investigations indicate that the size of class has little if anything to do with educational efficiency measured in terms of pupil achievement." — Edward A. Fitzpatrick

SAFWAY

Telescoping Gym Seats

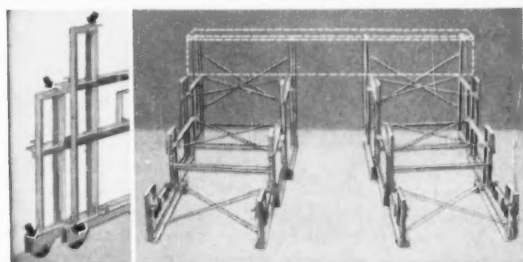


This 18-row installation telescopes easily and accurately

...assure quick, easy changes for every gym seating event

YOUR GYM SEAT SET-UP may be changed several times daily for varied gymnasium events. With frequent opening and closing, *easy operation* of seats is vital to keep your handling time and costs low.

Safway seats roll smoothly—minimize friction—re-



FRICION MINIMIZED BY ROLLERS; RIGIDITY INSURES STRAIGHT TRACKING

(LEFT) Rollers eliminate metal-to-metal friction at contact points. Top arrows show horizontal rollers in channel under foot boards; bottom arrows show vertical rollers between wheel assemblies.

(RIGHT) Standard 16-ft. section, showing vertical and horizontal bracing. Rigid structure keeps rows always parallel to insure straight, in-line tracking as rows telescope in or out.

duce effort. Complete 16-ft. sections move straight in and out, without binding or cocking. The simple telescoping design eliminates jointed levers and crossarms.

Advanced Safway engineering also gives you these important advantages:

STRONG, SAFE CONSTRUCTION—8 steel columns under every row; uniform load distribution through vertical and horizontal steel bracing; 3 automatic locking devices.

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C. HOWARD HUNT PEN CO., CAMDEN 1, N.J.

SCHOOL FIRE SAFETY

(Concluded from page 40)

the acid may cause severe injury to eyes or skin.

The extinguisher should be carried to the blaze by the handle at the top. Then, holding the nozzle on the hose in one hand, he reverses the extinguisher. Almost instantly the stream will shoot out through the nozzle.

In some cases it is then necessary to carry the extinguisher but at other times it may be stood on the floor.

The *Gas Cartridge Extinguisher* is outwardly the same as the Soda-Acid type, same size but uses plain water or anti-freeze solution. The pressure for forcing out the water is created by a gas cartridge inside the tank. To operate, some extinguishers are inverted and given a bump on the floor which drives a pin into the cartridge and releases the gas. The more modern cartridge extinguishers have a trigger to puncture the cartridge. The gas cartridge type of extinguisher also should be used only on *Class A* fires. There are also today some pressurized water extinguishers with pressure gauges which extinguishers are constantly pressurized and the pressure is released only when the nozzle is open.

The *Pump Type Extinguisher* is made in two sizes, 2½ gallons and 5 gallons and, like the other two just described, it uses water. Pressure inside the tank is created by use of a hand pump.

As in the case of the Gas Cartridge Extinguisher, anti-freeze may be mixed with the water. The extinguisher is carried to the blaze by the top handle but, unlike the other two, it is not inverted. It is placed on the floor, holding the nozzle in one hand while pumping with the other, and it is possible to throw a stream 30 or 40 feet. The tank can be refilled while the extinguisher is in use.

While many more of the soda-acid extinguishers are in use, they have the disadvantage of freezing which condition not only incapacitates them for service but, if frozen hard and long enough may burst the tank. Anti-freezing chemicals must not be added to the soda-acid extinguishers since such additions will interfere with the reaction of the original chemicals.

For that reason, either cartridge or pump type extinguishers should be used with anti-freeze solutions in unheated buildings in cold weather.

While watery mists or sprays are sometimes used for certain kinds of such fires, known as *Class B*, water is generally ineffective. In fact, it often tends to spread such fires as those of gasoline, oils, and greases. Therefore, several types of special extinguishers are designed for these fires. Following are the more commonly used of such extinguishers:

The *Foam Type* is shaped exactly the same as the soda-acid extinguisher and is operated the same way, but it contains

aluminum sulphate in addition to soda and water and a foam making ingredient. When the extinguisher is turned upside down, a foamy stream is ejected from the hose which blankets and smothers the fire.

The foam extinguisher contains about 2½ gallons of liquids which are capable of generating about 20 gallons of foam. While very effective against both *A* and *B* Class fires, the Foam Type should not be used for *Class C* (electrical) fires, since the water content is a conductor.

There is also the *Loaded Stream Extinguisher*, adapted for *A* and *B* Class fires, which looks and operates exactly like the gas cartridge type, except that it contains a special solution of alkali-metal salt instead of plain water.

For *Class B* and *Class C* Fires special extinguishers are designed and, for *Class C* fires which involve electrical conditions, nonconductive chemicals must be used to avoid shock or possible electrocution of the operator as well as to avoid aggravating the fire by short circuiting.

There are three types of extinguishers adapted for fighting *Class B* and *Class C* fires. These extinguishers, which contain no water, can also be used for small surface fires of *Class A* but are not as effective as they are on *Class B* fires, and are the only ones which may be used safely on *Class C* fires. Of these three extinguishers we have the following:

The *Vaporizing Liquid Extinguisher*, which contains chlorobromomethane or specially treated carbon tetrachloride, is the most common of this type in use. It consists of a brass or copper cylindrical tank with a capacity of about one quart and is operated by pumping the handle or, in certain models, by turning a handwheel.

The *Carbon Dioxide Extinguisher* has a horn-like nozzle through which is ejected a carbon dioxide gas. The gas blankets and smothers the blaze and being a nonconductor may be used on electrical fires. It has, however, a maximum range of only some eight feet and is most effective at closer range, moving the horn slowly from side to side.

The *Dry Chemical Extinguisher* comes in several designs, some of which depend upon a small cartridge of carbon dioxide to expel the dry chemical through the hose. Most of the newer designs, however, are self-pressurized, being operated by a trigger. The extinguisher functions through the release of the gas by directing the stream of dry chemical with a special nozzle. The discharge will last for 15 to 30 seconds.

(On all fire extinguishers, as well as on other equipment or devices which are in any hazardous or which are used in the prevention or control of hazards, the "UL" label assures you that the product has been tested for safety and approved by Underwriters' Laboratories, Inc., a non-profit organization sponsored by the National Board of Fire Underwriters.) ■



Are you doing everything you can to protect your children against fire?

Responsibility for the safety of school children rests with you. Fire drills can train them in orderly withdrawal from buildings . . . *if they don't panic*. Fire doors can slow the spread of flames . . . *if they are kept closed*. But only a sprinkler system will automatically detect and stop fire quickly — before it has

time to gain headway. For further information about Grinnell Automatic Sprinkler Protection, and the insurance savings possible, write Grinnell Co., Inc., 277 West Exchange Street, Providence 1, R. I. *Illustrated: Grinnell Quartzoid[®] Bulb Sprinkler, most advanced design for speed and dependability.*

GRINNELL
FIRE PROTECTION



THE SCHOOL SCENE

(Concluded from page 12)

teachers' salaries in any proportion the state education authority may determine. The proposals would allot \$25 per school-age child the first year, \$50 per child for 1960, \$75 per child for 1961, \$100 for each fiscal year thereafter.

NEW YORK SALARY PLAN

An extra-pay-for-extra-work program for New York city junior and senior school teachers, advanced by superintendent John J. Theobald, has met with considerable resistance from teachers in the city's elementary schools.

The over-all salary increase proposal, awarding a flat \$300-a-year to all teachers and supervisors, at a cost of 19 million dollars, was denounced by two major teacher organizations (the New York Teachers Guild and the New York Teachers Union) as a "token" increase, failing to meet the teacher salary problem. The especially controversial item in the proposal was the recommendation for junior and senior high school teachers to receive an additional one sixth of their present salaries to teach an additional class period of about 45 minutes daily.

SCHOOL EMPLOYEES AND PUBLIC OFFICE

The St. Louis, Mo., school board has effected a change in its rules prohibiting school employees from becoming candidates for public office without first seeking the board's permission. The change was made in an attempt to determine whether the employees' public office activity would interfere with their school duties.

SCHOOL ACTIVITIES CALENDAR

A school activities calendar has been developed by the administration and the student council of Marion, N. Y., which has been helpful in the distribution of activities. The setting of dates for dances, suppers, and other projects, as well as athletic events, has given opportunity to plan ahead and to insure dates without conflicts with other activities.

TELLING THE SCHOOL STORY

The board of education and Supt. Robert S. Brown of Marion, Ohio, have co-operated in the preparation of an eight-page supplement to the "Marion Star," explaining the present shortage of school facilities and arguing for a program of remodeling existing buildings and constructing needed new structures.

The argument is presented under the title, "Schools and the Community Grow Together." The problem is presented in the form of photographic illustrations, a street map, tabulations of enrollment and projected population growth. The financial picture is similarly presented in the simplest statements concerning assessed valuations, the debt situation, and estimated costs. The entire presentation is simple and straightforward, and relies on the common sense of parents and taxpayers to understand the service which the schools are expected to give the community and which they will be enabled to improve by the \$600,000 bond issue which is requested. The fact that the bonds proposed are less than one half of the local bonded potential and will have a very small impact on the local taxes is made clear.

The entire publication reflects the high standard of straightforward, intelligent school publicity.

FELLOWSHIP COMMITTEE APPOINTED

Commissioner of Education Lawrence G. Derthick has announced the appointment of a 12-member National Advisory Committee to assist the Office of Education in administering the graduate fellowship program under the National Defense Education Act.

Each fellowship is to run three years and is to be used only for work toward a doctoral degree. The Act authorizes \$2,000 during the first year of study, \$2,200 for the second year, \$2,400 for the third, with a grant of \$400 for each dependent.

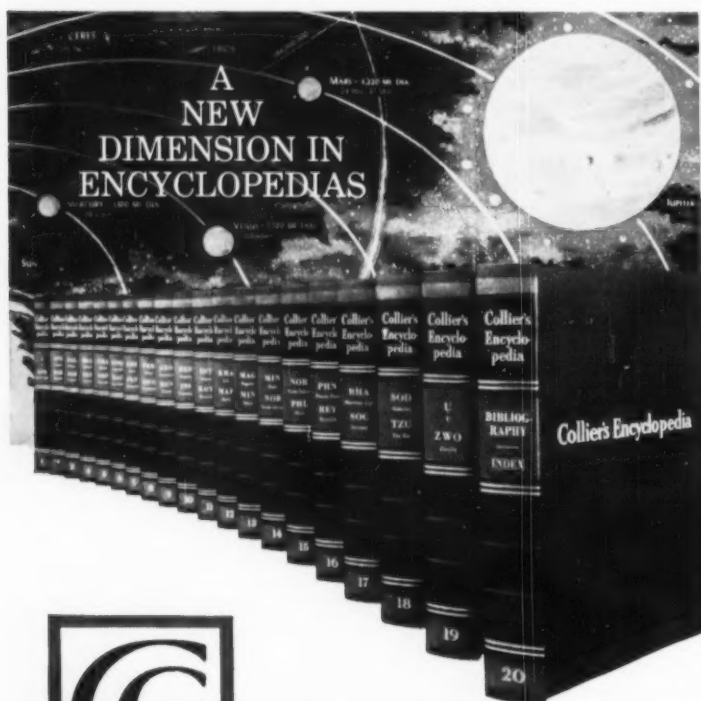
EMERGENCY NIGHT SCHOOL

The New York board of education opened five special night school centers to provide instruction for students affected by the shutdown of the regular evening high schools. Fifteen of the city's 16 evening academic high schools were closed to students because of a mass resignation of teachers on the opening day of the second semester. The walkout was made to reinforce the teachers' demands for higher salaries.

NEW SCHOOL BUSINESS COURSES

Temple University's Department of Educational Administration announced a new program for the professional training of school business officials. Commencing this summer, courses will be offered leading to either a master's or doctor's degree with a major concentration in school business management. Practicing school business officials can also select courses to strengthen specific skills without reference to normal admission or degree requirements.

Details of the program are available from Dr. Robert W. Wilson, Temple University, Philadelphia 22, Pa.



NEW 1959 COLLIER'S ENCYCLOPEDIA

The new 1959 Collier's Encyclopedia offers a New Dimension in planned, progressive expansion based on the reference needs and interests of modern readers.

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NEW BOOKS

Southern Race Progress

By Thomas J. Woofter. Cloth, 180 pp., \$3.50. Public Affairs Press, Washington 3, D. C.

This is a personal account of the experiences and observations of a cultured Southerner who has given much time and attention to the study of Southern racial problems. It explains many of the difficulties which school boards are experiencing in attempting to introduce integration in the schools. The author feels that a beginning can be made in favorable communities by desegregating high schools, but for some decades the elementary schools to be separate but equal. The book makes clear that it will be several generations before any successful attempt can be made to wipe out the wavering color lines in the schools.

The Chicago School Fire

Compiled by Chester I. Babcock and Rexford Wilson. Paper, 26 pp., 25 cents. National Fire Protection Association, 60 Batterymarch St., Boston 10, Mass.

This is a final report on the tragic Chicago school fire of last December, in which 93 pupils and teachers lost their lives. The report urges immediate action to correct conditions in older-type schools that lack adequate exit facilities and automatic sprinklers, and that have excessive amounts of combustible interior finish, substandard fire alarms, and poor housekeeping conditions.

Also Received

From Program to Facilities in Physical Education

By Harry A. Scott and Richard B. Westkaemper. Cloth, 483 pp., \$6.50. Harper Brothers, New York 16, N. Y.

This book provides comprehensive information on the planning, construction, and finish of facilities for physical education. It provides data on the most widely accepted standards as of 1958 in the planning of gymnasiums, auditoriums, fieldhouses, stadia, playgrounds, and other areas used directly or indirectly for physical education of children, young people, and adults. It offers information for college administrators and devotes considerable attention to the physical education facilities in teachers colleges and general universities. Very wisely, the authors do not present their own philosophy of physical education but describe rooms, buildings, and outer areas which will fit the programs now in use throughout the United States. The book makes specific recommendations for the size and shape of various rooms and buildings and discusses in detail the finish materials and the other special facilities needed. The authors have a very practical approach to all the facilities which they describe and recommend, but in some portions of the work, they are evidently relying on secondary sources for their information.

The book is full of valuable ideas with which school executives and architects should be familiar. School executives in charge of elementary and secondary programs may perhaps wish that the book included slightly more information on safety and legal aspects of physical education facilities. Further editions of the book should, we think, include layouts of stadia and spectators' stands such as are being built in increasing numbers in medium-size and smaller cities. The book makes many valuable contributions to the planning and construction of physical education buildings.

A Study of Educational Expenditures in New York State

By Rima Evans. Paper, 9 pp. State Education Department, Albany, N. Y.

This study indicates that there have been radical changes during the past decade in the percentage of total expenditures devoted to various expenditure categories. Capital outlay has increased to 1.9 per cent, a change of 156 per cent; auxiliary agencies has risen to 6.4 per cent, a change of 41 per cent; the cost of operating the school plant has reached 7.8 per cent, an increase of 7 per cent; instructional services have changed to 59.2 per cent, a decrease of 5 per cent.

Tax Collections in 1957

Paper, 8 pp. Tax Institute, 457 Nassau St., Princeton, N. J.

This report reveals that the total tax collections increased in 1957, setting a new record of \$98,858 million, or 7.9 higher than in 1956.

State tax collections amounted to \$1,156 million, or 8.6 per cent. Independent school districts collected \$4,706 million.

Source Materials for Ninth Grade Arithmetic

Prepared under the direction of Louis Braverman and Benjamin Schwartz. Paper, 53 pp., 50 cents. New York City board of education, 110 Livingston St., Brooklyn 2, N. Y.

A handbook of source materials taken from real life for ninth grade arithmetic. It contains suggestions for using these materials, and for diagnostic and remedial work.

Help for Air-Space-Minded Teachers

Edited by Jane N. Marshall. Paper, 16 pp. National Aviation Educational Council, Washington 6, D. C.

Contains a list of free and inexpensive pictures, pamphlets, and packets for air-space-age education.



Blooming Prairie Jr.-Sr. High School, Blooming Prairie, Minn.
Arche: Haarstick, Lundgren & Assoc., Inc., St. Paul, Minn.
Photographer: Clark Dean, Infinity, Inc., Minneapolis, Minn.

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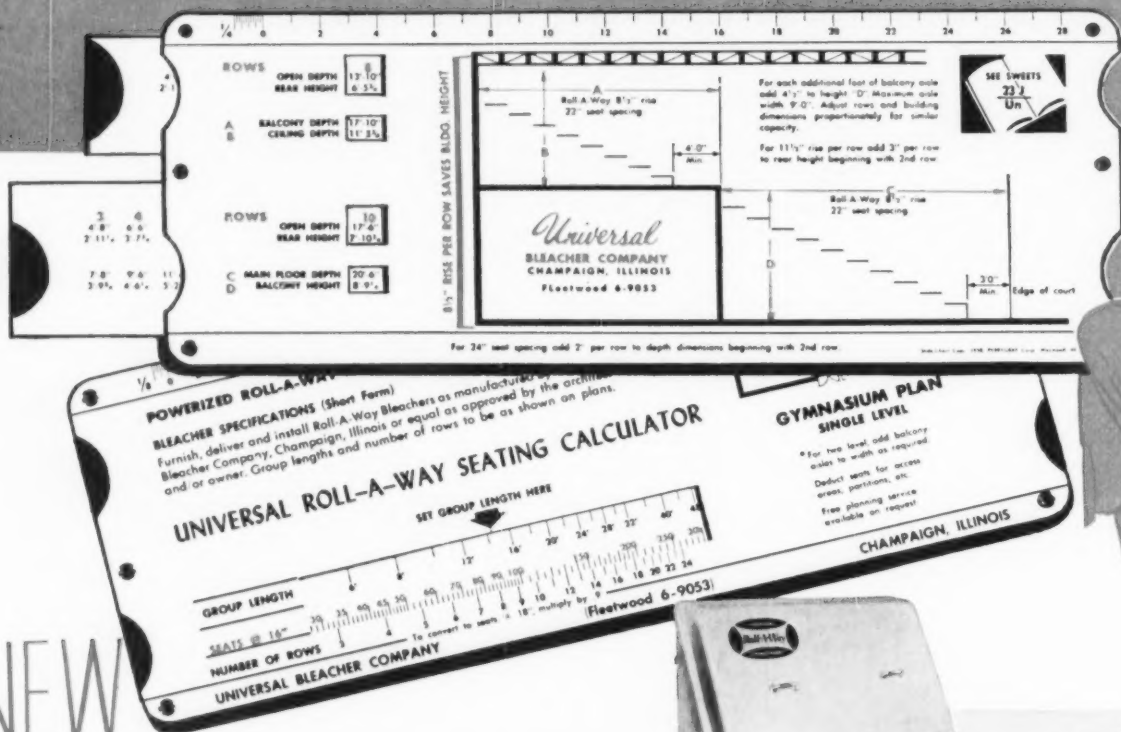
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to plan the very best in **Safe, Comfortable Seating**
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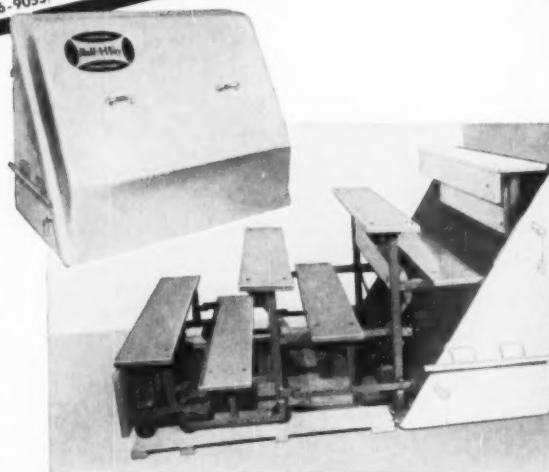
NEW

ACCURATE SLIDE-RULE TYPE CALCULATOR

Designed by *Universal* engineers after years of on-the-job experience, this new slide-rule type calculator will be of valuable aid to you in planning a gymnasium with Roll-A-Way Bleacher seating. It figures seating capacity per gym size, and vice versa. It shows proper balcony height for ideal seating sight line in relation to main floor seating. At the same time, it shows how proper planning can reduce ceiling height to a practical minimum . . . for big savings in both building and heating costs. Send for yours today. There is no cost or obligation.

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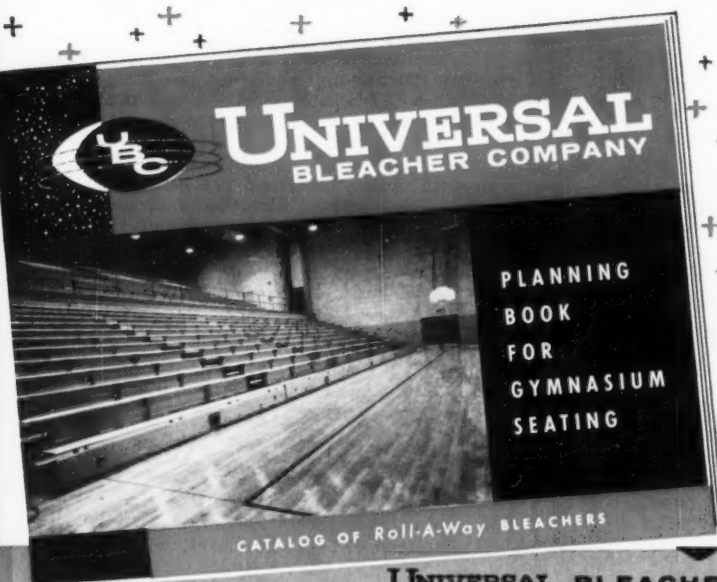


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NSBA CONVENTION

(Concluded from page 45)

of the individual student, Dr. Conant recommended a surprisingly large number of specific improvements, e.g., in the care of slow readers, the special care of the especially talented, the development of better articulated vocational courses for committed students, and more intelligent use of educational measurements and examinations. In conclusion, he warned against the dangers of using national or even state statistics. "Valid figures are those obtained by examining the situation school-by-school. By the same token, the much needed improvement of public secondary education can only come about school-by-school."

Special Meetings

The executive secretaries of state school boards associations, under the chairmanship of W. A. Wettergran of Minnesota, detailed statements of local service programs in the fields of school insurance, association publications, state exhibits, legal service to member school boards, and state legislative work. School board members and superintendents from cities of upward of 300,000 population, heard Asst. Supt. John Shreve of Cincinnati urge a broader tax basis for schools and the modernization of state tax systems. He argued that small school districts are wasteful of school funds and should be consolidated for more efficient use of taxes.

Ten sectional group meetings on Monday

night respectively took up: (1) relations of federal, state, and local school units, led by Robert Manchester, Ohio; (2) large city school board problems, led by Fred W. Heinold, Cincinnati; (3) co-ordinating community efforts to improve education in cities of 100,000 to 300,000 population, led by Supt. L. H. Shepoiser, Wichita, Kans.; (4) enlisting public support in suburban communities, Supt. Robert F. Savit, Plainview-Old Bethpage, N. Y.; (5) the work of the Columbus, Ind., school foundation in improving the teaching staff, led by Wm. R. Laws; (6) what the South Carolina School Board Association is doing for in-service training of school board members in small cities, T. Jackson Lowe, Columbia, S. C.; (7) relationships and responsibilities of school boards in intermediate (county) units, Howard A. Dawson, N.E.A., Washington, D. C.; (8) clinic of California school law problems, Irving Breyer and others, San Francisco; (9) educating the public about public education, led by Robert A. Luke, N.E.A., Washington, D. C.; (10) teacher accreditation, Judson T. Chaplin, Cambridge, Mass., moderator of panel.



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Resolutions and Policies

The Association in its resolutions urged the continuation of the school lunch program to be transferred to the control of the U. S. Office of Education and urged "the local boards of education to continue to plan and execute their school building programs in a manner that provides the best educational program for our children which the financial resources of the district can support." A resolution expressing opposition to the extension of the principle of federal aid to education was tabled.

The Association received and considered two statements of permanent policy advocating (1) school district reorganization which will enable all districts to encompass grades one to twelve, with kindergartens and junior college provided in communities which desire them; and (2) nonpartisan lay state boards of education in all states and territories, broadly representative of the public at large, the members to serve overlapping terms and be charged with the employment of the chief state school officer on a nonpartisan basis.

The New Officers

The Association elected as its officers for 1959-1960:

President — Robert E. Willis, Bradenton, Fla.

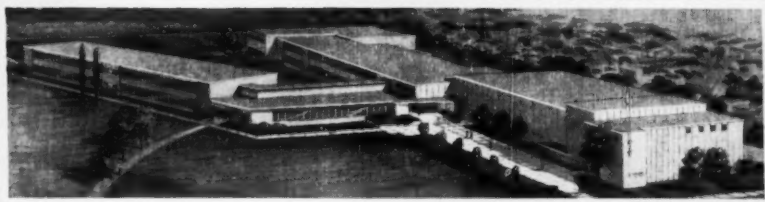
First Vice-President — Roy O. Frantz, Pueblo, Colo.

Second Vice-President — Theodore C. Sargeant, Swampscott, Mass.

Treasurer — Cyrus M. Higley, Norwich, N. Y.

Directors — Keath M. Lesh, Anchorage, Alaska, for Pacific Area; Robert O. Harvey, New Canaan, Conn., for Northeastern Area; George P. Whitman, College Park, Ga., for Southern Area; Mrs. J. F. Lucas, Omaha, Neb., for Western Area; J. V. Vittitow, Owensboro, Ky., for Central Southern Area.

The Association will hold its next convention in the Conrad Hilton Hotel, Chicago, March 1960. — W. C. B.



Superintendent of Schools:

Dr. O. E. Hill

Assistant Superintendent:

Dr. R. Y. Leech

Architect:

Spahn & Barnes,
Cleveland, Ohio

Electrical Engineer:

Mehnert & Reid,
Cleveland, Ohio

Electrical Contractor:

California Electric
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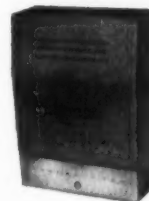


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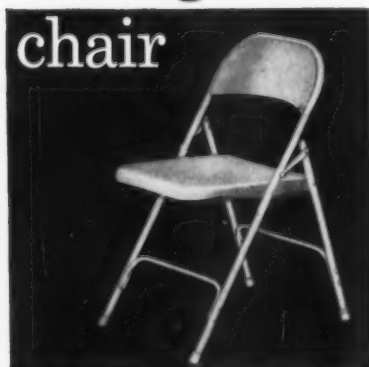
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Strength...electrically welded tubular steel construction. **Comfort...**contour designed seats and backrests. **Easy folding...**legs *glide* open and closed. **Safety...**self-adjusting hinges can't slip. **Finish...**snag-free, chip and rust-resistant. In 11 new colors.

Now at a new low price

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folding chairs



For church, club, other group seating information, see your Yellow Pages or write: © Shwayder Bros., Institutional Seating Div., Dept. AM-3, Detroit 29, Mich.

PERSONAL NEWS

CALIFORNIA

Dr. Jens Hutchens, district superintendent of El Cajon, has been retained by the board.

COLORADO

T. H. Pickens has accepted the position of deputy superintendent at Aurora.

ILLINOIS

G. E. Cornwell has been appointed First Assistant State Superintendent for the state of Illinois.

IOWA

Garlyn Wessel is the new superintendent at Inwood.

Francis Schuelke has been named to head the Olds schools.

C. T. Howard has been elected business manager for the schools of Boone.

Melvin D. Anderson has been elected superintendent at Ankeny.

KANSAS

Jerry O. Lawrence of Pittsburg is the new administrative assistant in Sedgwick county school district No. 51, Wichita. Mr. Lawrence is developing a modified core program in the junior high school curriculum, to begin in the fall of 1959.

KENTUCKY

A. C. Ross is chairman of the school board at Greenville. **Joe Lansford** is vice-chairman.

LOUISIANA

L. J. Autin has been elected president of the Jefferson parish board at Gretna.

I. P. Collier has been elected president of the East Baton Rouge parish school board.

MAINE

Supt. William H. Soule, of Portland, has been re-elected with a large increase in salary.

Andrew Freshette has succeeded Mrs. Anna R. Madore as superintendent at Fort Kent.

MINNESOTA

Vernon Sprague has been employed as assistant superintendent of schools at Fergus Falls.

NEBRASKA

Fred H. Bremer is the new superintendent of schools at McCook.

NEW YORK

Dr. Frances M. Wilson, a leader in the field of child guidance, died in Brooklyn on January 7. Dr. Wilson had been director of guidance for the board of education for the last eleven years, and had lectured at Columbia University's teacher college.

OHIO

The board of education of Cincinnati has elected **Wendell H. Pierce** as superintendent of schools, to succeed **Claude Courter**, whose retirement will become effective August 1, 1959. The board has created the position of associate superintendent and has appointed **Robert P. Curry** to this position.

PENNSYLVANIA

Eugene G. Hamill has been re-elected president of the Hollidaysburg board.

John Kaufman is the new president of Hempfield board.

H. Merritt Hughes has been elected president of the Wilkes-Barre school board. **Joseph F. FeVizia** is vice-president.

Miss Bessie M. Synder has been elected business manager and secretary for the board of Greater Greensburg.

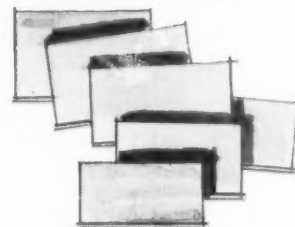
Ask
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CHALKBOARD (AND AVOID PITFALLS)

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Is it time-tested and classroom proven or the entry of a post-war opportunist?	63 years experience. Over 125 million sq. ft. of chalkboard.	?
Is it the major product of the manufacturer or a sideline?	Major product.	?
Is the surface color scientifically correct?	Laboratory developed. Approved by sight-saving authorities.	?
Is it handled by responsible, well-established, local stocking distributors or fly-by-night brokers?	Qualified local distributors.	?
Is it serviced by factory-trained field engineers or by no one?	Factory-trained field engineers.	?
Is it backed by a sound, proven maintenance program or by fantastic claims?	Proven, workable maintenance program.	?
Is it backed by an effective guarantee or by high sounding phrases?	Bona fide guarantee.	?

VISIT US AT THE A.A.S.A. CONVENTION-BOOTH F-23.



A CHALKBOARD FOR EVERY BUDGET-WEBER COSTELLO MAKES THE MOST COMPLETE LINE.

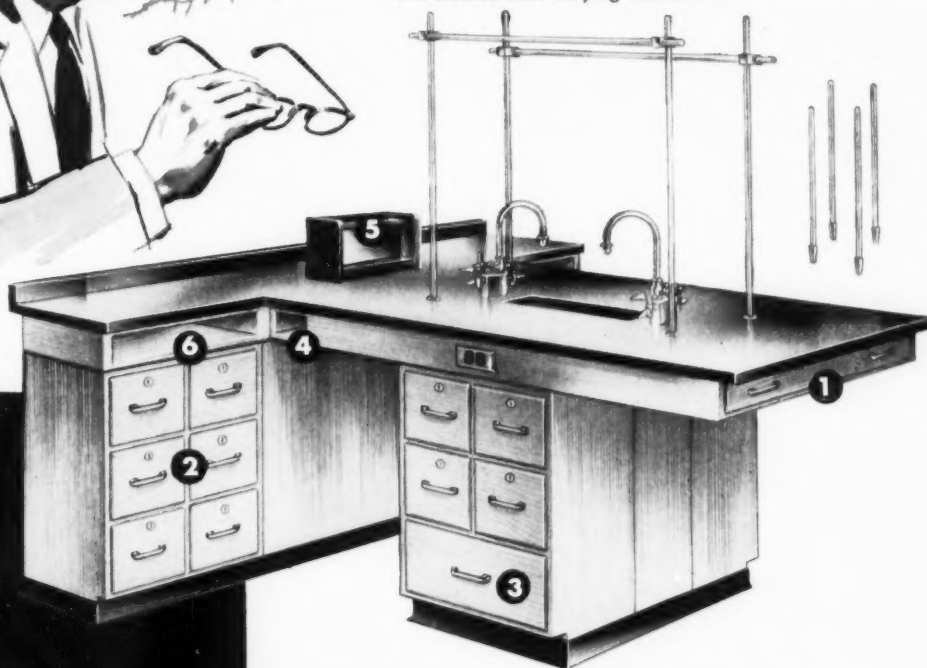
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WE WENT BACK TO SCHOOL TO LEARN ABOUT PLANNING ADEQUATE STORAGE FACILITIES . . .

There's no guess-work about Kewaunee-Technical's planned storage . . . to supplement previous experience, our consultant called on high schools and studied their varying curriculums.



6

STEP PLANNING ANSWERS MOST NEEDS...

- ① End Table Glassware Storage Drawer for 4 students.
- ② Individual Student Drawers with locks.
- ③ Common Storage Drawer for 2 students.
- ④ Rod Storage Compartment available to students working both sides of perimeter table.
- ⑤ Reagent Storage for 4 students.
- ⑥ Book Compartment for 2 students.

For Science Laboratory Classrooms

In addition to all the useful storage features, Kewaunee-Technical equipment is carefully finished in every detail by experienced craftsmen and built to give long years of satisfactory service.

You'll find these books most useful!

Write for your free copies of the new editions of the Planning Manual and Catalog of Wood Educational Laboratory Furniture.



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Mfg. Co., 5009 South Center Street, Adrian, Michigan

T E C H N I C A L

Furniture Inc., Statesville, North Carolina



Why DO MORE SCHOOLS CHOOSE

Here's the Answer

Hillyard simplified floor maintenance saves dollars. No fake economy of "cheap" maintenance products — just long-wearing savings that come from cutting labor costs. Hillyard products last longer because they are made better.

and here's the *Hillyard* 2-step treatment plan,

to preserve your floors' appearance, add years of life to the wearing surface, through good weather and bad.

1) Remove the dirt and soil that grinds away the floor with abrasive wear.

Hillyard **SUPER SHINE-ALL**® is the safe cleaner that passes all tests for complete dirt removal. It's chemically neutral — will not attack the finest flooring or its finish, or leave discoloring build-up. Instead, actually strengthens the finish film of protection, enhances the sheen. Because it does a more thorough job, less scrubbing is necessary and the whole rinsing operation is eliminated. **SUPER SHINE-ALL** saves you maintenance dollars.

2) Protect the floor with the toughest, hardest, longest-wearing — and most lustrous — wax of them all.

Hillyard **SUPER HIL-BRITE**®, made 100% from No. 1 prime yellow imported Carnauba wax, is outstanding among water-emulsion finishes for resistance to abrasion, moisture and stains. Forms a tough, hard film that holds dirt and water on the surface for easy removal. Buffs to a deep, rich sheen. Because this hard, smooth surface is easy to clean, and wears 3 to 4 times longer than ordinary waxes, it makes possible big savings in your maintenance budget — no frequent stripping and recoating!

Both products are UL listed "pertaining to slip resistance"



Ask, also, about specialized Hillyard finishes for other types of flooring—terrazzo, wood, concrete, gymnasium.



Hillyard FLOOR CARE than any other?



FREE

Write for Hillyard Floor Treatment Files, containing product information and detailed labor saving, step-by-step application procedures. One for each type of flooring.



The Hillyard "Maintainer" will be glad to help you work out a floor-saving, money-saving maintenance program. Call on him; he's a trained floor care specialist, "On Your Staff, Not Your Payroll!"



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- ☐ Please send me a set of Hillyard Floor Treatment Files. No charge.
☐ Please have the Hillyard Maintainer in my area call on me to discuss my floor care problems. No charge or obligation.

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School _____

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City _____ State _____

NEWS of PRODUCTS for the Schools

HIGH SCHOOL DESK

A trim desk and seating unit for high school or college use is made by General School Equipment Co., St. Paul 14, Minn. Known as



Comes in Three Heights

Model 67, the low-cost unit is designed for comfortable, correct posture. It features a large, durable desk surface for ease in writing. Desk pedestal, constructed of cast iron, allows full leg room. Neoprene rubber shoes prevent marring of floors and keeps the desk from slipping. The unit is easily moved for different seating arrangements. An out-of-the-way, yet easy to reach book shelf is an extra accessory.

(For Further Details Circle Index Code 020)

KING-SIZE DUPLICATOR

Model 360 is an offset duplicator with a reproduction area of 10½ in. by 16½ in. The large machine is made by A. B. Dick Co., Chicago 48, Ill. The greater image area permits duplication of two-up letterheads, 8½ in. by 11 in., four-page folders, and large



Copies Double Pages

accounting sheets and engineering drawings. Aquamatic control, a design feature of the machine, maintains constant ink-water balance, and insures uniform copy clarity. It can produce up to 9000 copies per hour. Self-adjusting cylinders allow transferring from

extra-light paper master to a metal plate and from 12-lb. paper to heavy Bristol stock without changing cylinder or roller pressures. The adjustable feed table needs no special tools or attachments.

(For Further Details Circle Index Code 021)

SCHOOL COACH FOR 1959

Superior Coach Corp., Lima, Ohio, announces the new school bus coach for 1959. The vehicle offers wider visibility with a total of 1315 sq. in. of viewing glass area in the rear. Last year front view visibility was increased to give the driver 136° cone of view. Other new features include: streamlined marker lights, button control mechanism for outward folding doors, enlarged wheelhouse opening for larger tires, protective covering over heater pipes, defroster, and hood over flasher lights. For full details write to the manufacturer.

(For Further Details Circle Index Code 022)

SMALL DATA-PROCESSING SYSTEM

A new punched-card data processing system for small offices is offered by Remington Rand, Div., Sperry Rand Corp., New York 10, N. Y. The low-cost system simplifies accounting work. It operates at a speed of 60 cards per



For School Records

minute and can be adjusted for faster performance. The four basic pieces of equipment are: alphabetical punch, sorter, alphabetical tabulator and summary punch, and reproducing punch. Additional units can be ordered if desired. An alphabetical punch records data on large 90-column cards before the card is punched. This provides easy correction of errors and facilitates fast repeat punching. The sorter arranges cards in any desired order. The alphabetical tabulator prints data from punched cards, automatically adding or subtracting and producing totals. The reproduction punch duplicates a card or set of cards. Send for folder U 1638 from the manufacturer.

(For Further Details Circle Index Code 023)

HANGERS FOR SPORTS UNIFORMS

A hanger specially designed for athletic uniforms is available from American Playground Device Co., Anderson, Ind. The hanger stores each uniform as a unit and has a secured number plate to insure against mix-ups. Designed to take a minimum of storage space, it has room for each piece of equipment to be individually hung for quicker and more sanitary drying. The compact hanger, constructed of ¼-in. steel rod, weighs about two pounds. Each hanger is permanently treated to resist rust and the corrosive action of perspiration.

(For Further Details Circle Index Code 024)

LANGUAGE LAB AIDS

R.C.A. has engineered a complete line of language laboratory systems for high schools and colleges. The key unit is a newly developed transistorized amplifier, measuring 4 by 3 by 8 inches, with switching provision for



Transistor Headphones

ten language channels. Each student, seated in a three-sided booth, is provided with an amplifier, headphones, and microphone. The student listens to pre-recorded lessons via the headphones, and then repeats the lessons into the microphone. The student can compare his accent, inflection, and pronunciation with that of the recording. Each booth is fitted with a volume regulator for the headphone and a separate control for the microphone. The system offers various adaptations which include allowing the teacher to monitor a lesson or hold a conversation with individual students. Full information may be obtained from Radio Corporation of America, Camden 2, N. J.

(For Further Details Circle Index Code 025)

MODULAR COMMERCIAL DESK

More than 35 modular combinations are possible with the four basic units that comprise the Profession-L "Business Practice" furniture made by Cramer Posture Chair Co., Inc., Kansas City, Kans. With this versatile furniture one classroom can be equipped for typing, shorthand, bookkeeping, machine practice, and general business classes. The basic unit is the 20 by 40 in. tabletop "Utili-Desk." To this may be added a solid 18 by 24 in. platform or an adjustable typing platform (Pictured). The fourth unit is a 20 by 40 in. desk with self-contained, adjustable typing



"Utili-Desk" and Typing Unit

platform. All units are available for left- or right-hand attachment, in 29 or 26 in. heights. Heavy square steel tubing forms the K-shaped frames which allow plenty of knee room. All pieces have birch pattern tops with frames available in a choice of seven decorator colors. Adjustable, cushioned glides on the legs compensate for uneven floors and vibration.

(For Further Details Circle Index Code 026)

(Continued on page 72)

CORRESPONDING CODE INDEX NUMBERS TO BE ENCIRCLED CAN BE FOUND ON THE CARDS IN THE READER'S SERVICE SECTION



Why Royal is standard equipment wherever typing is taught!

Think of it! With many different kinds to choose from, *more than half* the typewriters purchased for teaching are Royal Standards.

One reason is the fact that business prefers this typewriter, too. Your students are apt to meet the Royal Standard on that very first job.

Royal reliability is widely recog-

nized. There's less interruption for service. But when service is needed, Royal has more service points than any other manufacturer.

This great dependability helps explain why Royal Standards invariably command higher prices than all other typewriters in the used-machine market.

Exclusive features!

Magic® Margin continues to be the easiest to set of all margins. And the newest Royal Standards bring you many new exclusives like Twin-Pak®, the quick-changing ribbon that fingers don't touch; and *finger-balanced*

touch allowing lighter stroking on the short finger keys.

If you haven't investigated the newest Royal Standard, why not call for a free demonstration and trial. Learn firsthand—at *your* convenience—how this great machine can make teaching and learning easier. Much more rewarding for you, too!

ROYAL®
standard

Product of Royal McBee Corporation,
World's Largest Manufacturer of Typewriters

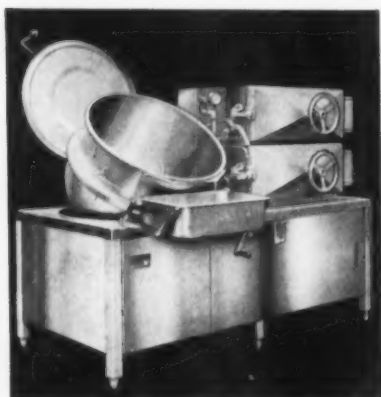
THERE ARE MORE ROYAL TYPEWRITERS IN SCHOOL AND OFFICE USE THAN ANY OTHER MAKE.

News of Products . . .

(Continued from page 70)

TILTING STEAM KETTLES

Newly engineered and designed, the steam cookers from Market Forge Co., Everett 49, Mass., feature tilting kettles. The Markette models are available in one, two, or three,



Kettle and Steamer

standard or wide, compartments in combination with 20, 30, or 40 gallon stationary or tilting kettle. The kettle is cabinet mounted and has a one-piece cover with tangent draw-off and automatic pan support. The cookers have integral plumbing, eliminating tiled curbs, recessed floor areas, and concealing controls. Drainage from the equipment is directed

into a common draw line. All pieces are constructed with a stainless steel body and interior, and with a polished or baked enamel exterior.

(For Further Details Circle Index Code 027)

FURNITURE FOR ANY BUDGET

Three attractive lines of school furniture priced to suit any budget are offered by Heywood-Wakefield Co., Menominee, Mich. Rugged quality is a feature of the budget-priced Newport series. Tables, desks, tablet arm chairs, stacking chairs, and chests are included in the line. All desk tops are of natural finish Densi-Core plastic, pressure molded for strength and durability. In the moderate price range is the Standard Tapered line featuring tapered tubular steel furniture for classes from kindergarten to college. The deluxe Trimline series consists of HeyWoodite desk tops, seats and backs, and tablet arms formed of a single piece of solid plastic. This line features colors permanently molded into solid plastic. The sturdy tubular steel frames are chrome plated. The company also offers a line of upholstered auditorium seating. Send for full details.

(For Further Details Circle Index Code 028)

CLEANER CARBON COPIES

Carbon paper that will not curl, slip, or smudge is offered by the Roytype Department, Royal McBee Corp., Port Chester, N. Y. A hard wax surface on the carbon eliminates roller marks, finger smudges, fuzziness, and facilitates clean erasures. Called Roytonic, the paper is packaged in boxes that fit into the stationery compartment of the desk. It is offered in a variety of weights and finishes for all normal copy requirements.

(For Further Details Circle Index Code 029)

REDESIGNED ELECTRIC TYPEWRITER

IBM announces a redesigned electric typewriter featuring a longer carriage and writing line. The interior of the new machine has been



Book-Style Type Faces

made more accessible to permit faster ribbon changes. In addition to the standard model, there is an Executive model featuring proportional spacing which results in book-style printing. It may be ordered in a choice of 16 type faces. Both machines are available in six colors. Send for more details from International Business Machines Corp., New York 22, N. Y.

(For Further Details Circle Index Code 030)

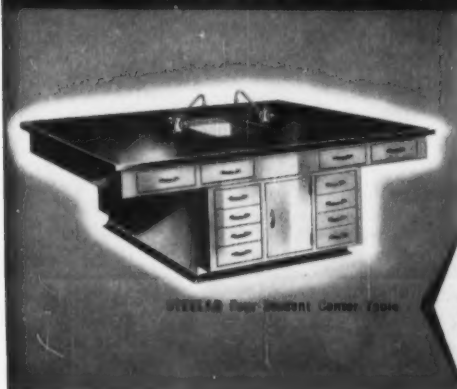
(Continued on page 74)

CORRESPONDING CODE INDEX NUMBERS TO BE ENCIRCLED CAN BE FOUND ON THE CARDS IN THE READER'S SERVICE SECTION

NOTHING IS stronger, safer, more economical

than steel... **NOTHING IS STRONGER • SAFER • MORE ECONOMICAL FOR SCHOOL LABS THAN**

STEELAB SCIENCE FURNITURE



Why is it that most new installations for school laboratories specify steel—and nothing but steel? You know the answer from experience...that wooden laboratory furniture deteriorates, rots and needs constant, costly maintenance. Educators and architects protect school investments with safer, more durable, quieter, maintenance-free and more economical STEELAB Science Furniture. Yes—STEELAB gives you MORE...and actually costs you LESS!

Write today for Complete STEELAB Catalog No. 59E-B

Steelab TABLES • SINKS
CABINETS • STORAGE CASES
FUME HOODS • ACCESSORIES

Since 1920—Over 50,000 Installations • MINEOLA, LONG ISLAND, N. Y. • PHONE: Pioneer 2-3600



STEELAB Ruggedized Educational Science Furniture—Built with the Beauty and Strength that only Steel can give

**LABORATORY
FURNITURE
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Pupils concentrate harder when they have bright, *sharp* copies to read. There are no smudges or faded words to distract them. Their minds are more receptive, better able to grasp and retain what they read.

This is why it's important that you use *all four* DITTO Coordinated Teaching Aids: duplicators, supplies, papers, workbooks. Each is physically and chemically coordinated to work with each other. Result: bright, clean copies; savings in time and work for you (no re-runs or re-do's); better pupil response.

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AV Experts are in a position to know. Find out how YOUR School can improve the teaching process. Write for the new Free brochure: "Turn Teaching Into Learning"

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Ask the men who
have the "say"



LOW-LEVEL type for
schools and wherever
"small fry" gather



1A

Halsey Taylor
gets their O.K.

Ask any architect, contractor, school administrator . . . they'll all agree that Halsey Taylor is the logical choice. And not without reason, for Halsey Taylor offers the greatest advantages, since it is built by a house devoting its entire facilities and resources to the manufacturing of the finest in drinking-water equipment. Write for latest catalog.

The Halsey W. Taylor Co., Warren, Ohio

News of Products . . .

(Continued from page 72)

PLASTIC LAMINATING MACHINE

American Photocopy Equipment Co., Evanston, Ill., has introduced a new office unit, the Apeco Ply-On Laminator. The machine, which resembles a photocopying unit, encases papers and documents in thin, pliable layers of plastic film. Fused on one or both sides of an original document, the plastic protects it from dirt, moisture, wear, and tear. The machine handles copy up to 11 in. wide. Cost of laminating a letter-size page is about 2½ cents per side. Some recommended school uses are: preserving student identity cards, transcripts of credits, teachers' certificates, sheet music for class use, educational charts, awards and diplomas. In the library: card catalogs, historic papers and letters, book jackets, and newspaper clippings.

(For Further Details Circle Index Code 031)

SCHOOL SHOP LATHE

The new Delta 10-in. metal cutting lathe, especially designed for school shop needs, is available from Rockwell Mfg. Co., Delta Power Tool Div., Pittsburgh 8, Pa. Three features of the lathe are: a variable speed drive, a ¾-in. collet capacity, and a drive that can be pre-set for both high and low speed limits in either direct or gear drive. The variable speed drive offers advantages of from 50 to 1500 r.p.m., plus high torque transmitting power matched V belts in the final drive to the spindle. Variable speed can be pre-set by the instructor, a desirable feature when working with an inexperienced student. The lathe is powered by a ¾ h.p. motor. A bench



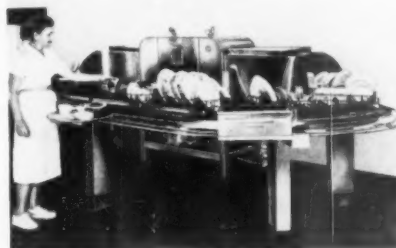
Teacher Can Set Speed

for separate mounting of the motor is optional from Delta. Write for more details.

(For Further Details Circle Index Code 032)

CONTINUOUS DISH CONVEYOR

The Champion Adamation unit is a continuous, automatic dish rack conveyor system recently introduced by the Champion Dish Washing Machine Co., Erie, Pa. The circular unit requires less floor space and permits flexibility in kitchen arrangements, since, if desired, the dishwashing unit can be located



Dish Sorting Unnecessary

outside the kitchen area. Trays are unloaded directly into the slowly moving conveyor racks, without segregating soiled dishes. It saves hot water consumption by reusing the final rinse water in the prewash unit. Clean dishes can be loaded directly onto a storage cart. The manufacturer claims 75 per cent less handling of dishes with resultant lower labor and breakage costs. Conveyor speed can be controlled manually or automatically. A waste disposer unit is optional equipment.

(For Further Details Circle Index Code 033)

NEW DISHWASHING CHEMISTRY

Chemists at Economics Laboratory, Inc., New York City, have discovered that it is primarily protein, not fat, that causes aeration and foaming of wash solutions in dishwashing machines. Such chemical action results in a loss of water pressure and cleaning action. The normal efficiency of a dishwasher is impaired whenever the dishes are soiled from eggs, meat, milk, mashed potatoes, flour gravies, etc.

"ARTIST, CRITIC & TEACHER" 2/6d (40¢)

Lindsay Anderson, Kenneth Tynan, John Berger, Brian Roombridge, Christopher Logue.

Also still available a few copies of our
Whitsun Report:

"ART SCIENCE & EDUCATION" 5/- (60¢)

Both illustrated; both compiled by
John Morley.

A new Study in Methods and Attitudes.

Send To: H. E. Lobstein, Secretary, JOINT COUNCIL
FOR EDUCATION THROUGH ART, 12 The Green,
Jordans, Beaconsfield, Bucks., England.

To combat the protein action, the company has developed two new detergents, "Score" for medium to hard water, and "Event" for soft to medium water. By eliminating aeration and foaming, the two detergents maintain normal wash pressure in dishwashing machines under various soil and operating conditions, allowing the machine to operate near maximum efficiency at all times. Send for more descriptive literature.

(For Further Details Circle Index Code 034)

MOBILE SCIENCE DEMONSTRATOR

A mobile science laboratory for teacher demonstrations, manufactured by Central Scientific



For All Grades

Co., Chicago, transforms a regular elementary classroom into a science room. This all-in-one unit rolls from room to room, thereby saving schools the cost of equipping each elementary grade with science instruction equipment. The Cenco Mobile laboratory is equipped with gas, electric, and water services; support rods; peg-board display panels; and roomy storage area. Available in colors with a Formica work surface.

(For Further Details Circle Index Code 035)

SEVERAL KINDS OF MATTING

The American Mat Corp., Toledo 4, Ohio, offers a complete line of matting for gymnasium use between the playing area of the basketball court and the front row of seats. The matting, which comes in rolls, will prevent slipping by spectators and will protect the playing surface. Standard corrugated runner is $\frac{1}{8}$ in. thick, comes in 24, 36, and 48 in. widths, in black, brown, red, green, blue, or gray. Kleen Sweep matting in black, brown, red, and green is also $\frac{1}{8}$ in. thick, comes in 24 and 36 in. widths. A wide rib matting is $\frac{3}{16}$ in. thick, 24 and 36 in. wide, in black or brown. A heavy-duty Do-All runner made of a new rubber and cord compound comes in two styles: $\frac{1}{4}$ -in. cross rib and $\frac{3}{16}$ -in. long rib, both in three widths of 24, 36, and 48 in.

(For Further Details Circle Index Code 036)

CATALOGS AND BOOKLETS

Mississippi Glass Co., St. Louis 7, Mo., has released catalog 59-G featuring the company's complete line of glass for school room use. Discussions of heat absorption, light transmission, and diffusion qualities are included.

(For Further Details Circle Index Code 037)

A free, illustrated catalog from The Kindt-Collings Co., Cleveland 11, Ohio, describes the firm's 1959 line of pattern shop, foundry, and industrial equipment and supplies.

(For Further Details Circle Index Code 038)

"Automatic Control Systems Guide for Architects and Engineers" is an illustrated description of control systems for heating, ventilating, and air conditioning. Write for brochure F-8944, free upon request to Barber-Coleman Co., Rockford, Ill.

(For Further Details Circle Index Code 039)

"Bulletin ESL-2047," an illustrated brochure from the Berger Div., Republic Steel Corp., Canton 5, Ohio, is an aid to planning more adequate storage facilities in schools.

(For Further Details Circle Index Code 040)

CORRESPONDING CODE INDEX NUMBERS TO BE ENCIRCLED CAN BE FOUND ON THE CARDS IN THE READER'S SERVICE SECTION

MANUFACTURERS NEWS

The Clarke Sanding Machine Co., Muskegon, Mich., makers of floor maintenance machines, has changed its name to **Clarke Floor Machine Co.** The company has also purchased a new building to accommodate its business growth and expansion of its line of equipment.

The Heywood-Wakefield Co. has purchased Fiberglas fabricating equipment for its plant in Gardner, Mass. The equipment includes a 240-ton press, various chair molds, and heat-curing ovens. The firm manufactures solid plastic and laminated plastics for school furniture.

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Thrifty

Cover your
books with
**HOLDEN
BOOK
COVERS**

It is a recognized fact that if one wishes to get maximum service from textbooks, **BOOK COVERS** are an absolute necessity and **HOLDEN BOOK COVERS** are recognized as the Standard for Quality.

They are made of material designed to withstand the wear and rough usage incidental to classroom use.

They will prolong the life of the books from one to three years.

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HOLDEN PATENT BOOK COVER CO.
Springfield 1, Mass.

Monroe FOLDING PEDESTAL BANQUET TABLES

SOLD DIRECT
Over 50 years experience and service back Monroe Folding Tables and other products. Largest factory in the world selling folding tables direct to schools, churches, lodges, clubs, hotels, and other institutions.

Factory Prices and Discounts
Our catalogues are only salesmen. Our manufacturing and distribution savings are passed on to the organizations and institutions, like the over 51,000 whom we have served.

All Steel Folding Chairs
Monroe-Approved chairs in attractive range of styles, sizes at direct prices. Packed in comfort, durability and ease of handling.

Transport Trucks For Tables and Chairs
Any room set up or cleared in a jiffy. One man can do it. For both moving and storing. Model T-18 shown.

Portable Partitions
Panels in tubular steel frames, on swivel glides or casters. Idle space converted to useful areas. Also chalkboard finished, with cork tack boards as shown.

Monroe No. 3 Deluxe 30x96 in. 30 in. high
Easily Seats 10 (5 on each side)
Maximum seating capacity and comfort. Exclusive MONROE folding steel pedestals eliminate knee interference. Folds flat. 12 tables "stack" only 29 inches high. Ideal for multiple dining and recreational activities. This model offered in 8 sizes, in 3 Monroe Top Finishes—Tempered Masonite (as shown), Ormacel Blon-D and Melamine Plastic.

Monroe Fold Lite Utility Tables
Conventional steel folding legs, 18 sizes from 32" x 32" up to 3' x 10' and 4' x 8', special sizes to order. Masonite and Ormacel Blon-D tops.

Adjustable Height Folding Tables
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30	33	36	39	312	315	318	321	324	327	329	331	333	335	337	339
31	34	37	310	313	316	319	322	325	328	330	332	334	336	338	340
32	35	38	311	314	317	320	323	326							

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31	34	37	310	313	316	319	322	325	328	330	332	334	336	338	340
32	35	38	311	314	317	320	323	326							

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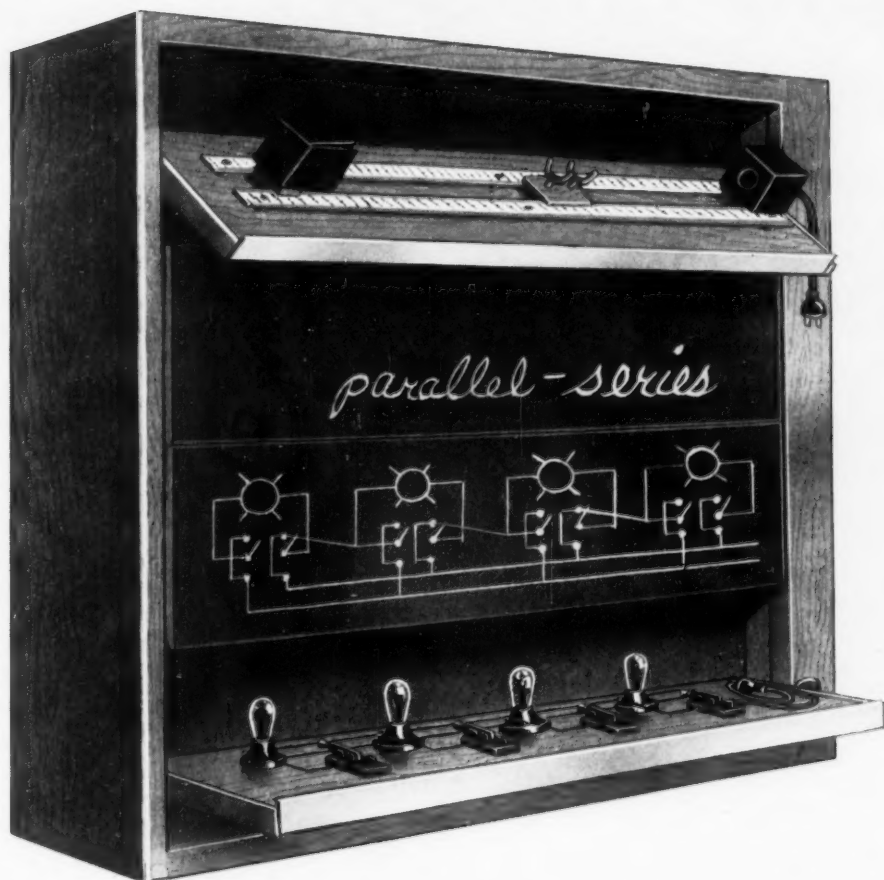
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339 Weber Costello Co. 66 Chalkboard		033 Champion Dish Washing Machine Co. 74 Automatic Conveyor System	
340 Wells Lumber Co., J. W. ... 76 Northern Maple Flooring		034 Economics Laboratory, Inc. 74 Dishwasher Detergent	
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